Sales Will Continue High But Population Decline Foreseen For SD

Over half a billion dollars was spent by Convair Division of General Dynamics Corporation in 1959 to pay wages and salaries and to buy goods and services in the communities in which Convair's four main manufacturing facilities are located.

This was included in a year-end statement from Convair President J. V. Naish, released this week.

In San Diego, home of Convair's General Office and two of its operating divisions, $270,918,016 was paid out in wages and salaries — more than $5 million every week. At year's end, employment in General Office and in San Diego and Astronautics operating divisions totaled 40,900, of which 6,250 were stationed at off-site bases.

Sales for Convair will continue high in 1960, Naish said, but it is probable that Convair's total population will undergo some reduction. In San Diego, employment at Astro and SD divisions probably will be around 36,000 by the end of 1960, with approximately 5,500 of this total at off-site bases.

Naish said that these figures are based on business already committed and do not take into account the possibility of additional sales.

Based on the most recently revised figures, employment at Fort Worth operating division will decline from the present 18,500 to about 16,000 by the end of 1960, while employment at Pomona operating division will stay at about 6,000.

At Fort Worth the payroll for the year 1959 was $137,372,087. The Pomona payroll was $39,642,783.

Approximately $31,250,000 was spent by Convair in the San Diego area during 1959 to purchase products, materials and services from local industry. Astronautics purchases were $20,091,000 and SD's were $11,156,000.

The Fort Worth operating division spent approximately $13,889,000 for materials and services in the Fort Worth-Dallas communities. The Pomona operating division purchased about $16,175,000 worth of goods and services in Southern California during 1959.

C-V CONVAIR

Published every other Wednesday.

GD GENERAL DYNAMICS

Convair Division of General Dynamics Corporation.

Convairiety

San Diego EDITION

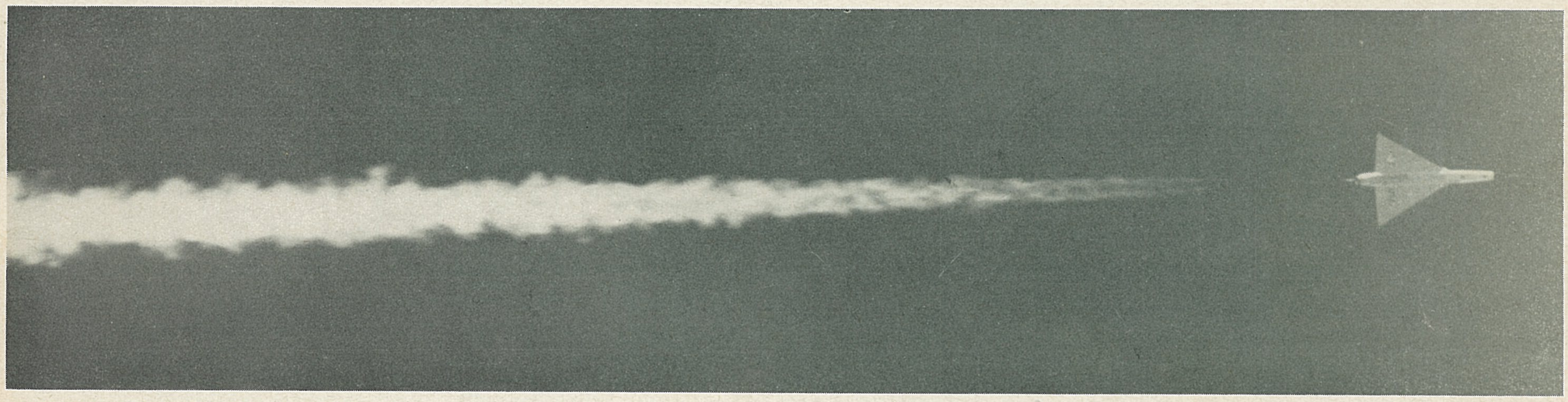
(Serving Convair San Diego)

San Diego news office: Plant 1, Bldg. 32, ext. 1071.

Vol. 13, No. 1 — Wednesday, January 6, 1960

SAN DIEGO, POMONA, ANTELOPE VALLEY, VANDENBERG AFB, CALIF. — AFMTC, CAPE CANAVERAL, FLA., FORT WORTH, TEX.

Twice-Speed-of-Sound Photo Shows F-106 Setting World Record



WORLD'S FASTEST—Convair F-106A flashes across sky leaving broad contrail above Edwards AFB, Calif., at 40,000-feet altitude as it starts speed run which set new record of 1525.95 miles an hour. Above shot was taken by Convair SD cameraman from chase plane while flying over twice speed of sound.

Three 880s Undergoing Flight Testing For FAA

Convair San Diego's portion of the flight test program leading to the start of FAA certification of the Convair 880 jet transport was virtually complete as 1959 drew to a close.

"Except for a few clean-up checks, engineering flight testing on the three 880s, which have been in flight test during the last year, has been concluded most satisfactorily," said George E. Putness, Convair SD chief of engineering flight test.

All three planes are now in certification tests for the Federal Aviation Agency which issued the necessary type inspection authorization for the Convair 880 the early part of last month.

A provisional airworthiness certificate was received Dec. 18. This certificate permits delivery of 880 aircraft to customers for crew training and route survey purposes.

The FAA flight test program will result in certification of the Convair 880 before the first of May, Putness said.

The first Convair 880, plane No. 1, went to flight test for its maiden flight almost a year ago —last Jan. 27. Since then, Don Germeraad, chief engineering test pilot, and his crew have put the huge gold and white transport through a series of strenuous tests aloft to determine general handling qualities.

Its particular function in the test program is primarily for evaluation of stability, control, and high speed flight characteristics. Flight control systems, including the Mach trim compensator and landing gear pitch trim, have been evaluated, as well as the autopilot for the TWA planes.

Plane No. 1 went into stability and control demonstrations for FAA last month. It will be test flown with FAA pilots and flight test analysts aboard during the next two months.

The first plane will be laid up the end of March for modification to the Convair 880 version for Capital Airlines. Changes will include installation of wing leading edge slats, Convair 600 vertical fin, and power boost rudder, and, later, the higher thrust-rated engine, the General Electric CJ-805-3B. Tentative plans call for it to go back into the flight test program by late summer of this year.

(The second 880 off the line, plane No. 2, went to the structures lab at the SD seaplane ramp a year ago—last December —for a seven-month intensive static structural testing program.

(Continued on Page 2)

Conrad Kunze SD Assistant Mgr. Operations

Appointment of Conrad Kunze as assistant Convair San Diego manager - operations was made last week, B. F. Coggan, Convair vice president and San Diego manager, announced. He succeeds A. W. Morgan.



Conrad Kunze

A. E. Hill, former chief tool engineer for SD Plants 1 and 2, joins the staff of August C. Esenwein, Convair executive vice president. Assuming Hill's duties is W. P. Woods, who is returning to SD operating division from Astronautics, where he recently had been named activation works manager.

Kunze joined Convair at Fort Worth in 1956 as assistant chief tool engineer. Before that he had been with Northrop Aircraft Corp. for five years as superintendent of production and manager of material.

He held the post of FW industrial engineering manager at the time he moved to Convair General Office as assistant to Convair executive vice president in May of last year.

Hill, long-time Convair man, joined Consolidated Vultee in 1940, rising to assistant superintendent before he left in 1945. He rejoined Convair in 1949 and served as assistant chief tool engineer and chief tool engineer before being named Plant 1 works manager in 1956, a post he held until recently.

Woods had been chief tool engineer at San Diego Plant 2 from 1952 until his transfer to Astronautics last fall. He was with Convair Fort Worth for seven years before his move to San Diego. There he served as superintendent of final assembly and superintendent of development manufacturing.

World Speed Mark Leads News in '59

Successful flight testing of the jet 880 and delivery of first production ships to field operations . . .

Establishment of a new world speed record by the F-106 and assignment of these airplanes to active Air Force duty, as well as expanding operational duties for the F-102 . . .

Start of production on the jet 600 . . . and establishment of a new streamlined spare parts ordering and delivery system for both 880 and 600 . . .

Establishment of an electronics factory and growing emphasis on this field of business . . .

These were the major news developments affecting San Diego operating division of Convair during 1959.

Chronologically, this is how the year went at San Diego:

JANUARY: August C. Esenwein named executive vice president and J. G. Zevely and E. P. Wohl appointed vice presidents; award of a $2½ million contract by ARPA for advanced ballistic missile defense studies; jet 880 makes first flight (one hour, 14 minutes) Jan. 27, lands at North Island; first F-102s land in Europe, assigned to Bitburg, Germany.

FEBRUARY: A. E. "Augie" Hill named SD Management Club's "Man of the Year." 880 makes first overnight trip away from "home," a flight to Edwards AFB.

MARCH: F-102s arrive in Okinawa; Ralph Bayless appointed Convair director of engineering; W. W. Fox becomes SD chief engineer and Richard P. White, assistant chief engineer for product design; Jim Saftig, recently elected president of CRA, killed in small plane crash; 15,000-mile, two-way wire system links all General Dynamics Divisions; annual report sets Dynamics backlog at about $2 billion.

APRIL: "RX" cost reduction campaign kicked off at San Diego; another jet 880 makes first flight; contract to build missile launchers for Atlas at SD Plant 2 revealed; Danny Whorton elected CRA president.

MAY: Drive under way to raise funds for Tri-Hospital campaign; Kent Sinclair wins 1958 President's Award for cost reduction efforts; B-24, restored, flown to Air Force Museum at Dayton.

JUNE: Improved material handling system in effect at Rose Canyon; Employee Suggestion Award of $5,639 sets new record, goes to E. J. Rasp and J. B. Stevens; SD operating division gets $2 million contract to design radar systems for North American Aviation, Inc.

JULY: First customer training course conducted by production flight department graduates nine TWA men; electronics manufacturing concentrated in Bldg. 4, Plant 1; F-106s introduced to McGuire AFB, New Jersey; $2½ million rehabilitation of Bldg. 5 in final stages.

AUGUST: Dynamics laboratories' new general test building occupied; third 880 to fly makes first flight; President Jack Naish announces that flight testing has proved that 880 can fly 615 mph in level flight, faster than any

(Continued on Page 2)

Globetrotters vs. Convair Team Will Feature CRA 'Sports Night'

Harlem's famous Globetrotters will play a crack Convair cage team Feb. 1 at San Diego Arena in a special "Convair Night" sports attraction sponsored by Astronautics and San Diego CRAs.

Tennis stars Althea Gibson and Karol Fageros will play an exhibition at half time.

The entire arena has been reserved for Convair employees and their guests.

Tickets were expected to be available this week at all employee services offices. They sell from $1.75 top down to $1 each. (This is one-half the regular price, thanks to CRA.

The famed Globetrotters will feature their usual brand of dazzling basketball, plus clowning antics which have made them popular throughout the world.

Meeting the Globetrotters will be the Astronautics City League cage team, a group made up of several former collegiate and prep school stars. The game will be a regulation affair.

All tickets will be on a first-come, first-served basis.

Archie Moore On SD Club's Sport Program

Archie Moore, popular world's light heavyweight boxing champion from San Diego, will head a slate of local celebrities of the sports world at the Jan. 20 meeting of the Convair SD Management Club.

Also scheduled for the "Sport Night" meeting in the Balboa Park Club are Ed Runge, American League baseball umpire, and Al Schuss, radio and TV announcer, who will be master of ceremonies.

Sponsored by industrial engineering and long range planning, the meeting starts with a 5:30 p.m. social hour, followed an hour later by dinner. Tickets, priced at $2, are now on sale for Management Club members at the usual departmental outlets.

Additional program entertainment will be provided by the Convair SD Choralaires, CRA mixed vocal group.

Color Photographs Go to Suggesters

Latest winners of bonus awards under the revised Employee Suggestion program at Convair SD have been announced by the cost reduction department.

Color photograph sets of Convair planes and missiles, which are given in addition to cash awards, have been earned by A. M. Rich (Dept. 324-4), Catherine Simas (Dept. 116), Richard V. Little (Dept. 324-2) and Robert C. Dixon (Dept. 142). Desk set winners for November were J. H. Tanner (Dept. 321-2) and E. E. Martinez (Dept. 204).

Managers to Confer On Business Future

Managers of Convair plants will assemble at Convair Fort Worth Jan. 11 and 12 for a two-day discussion on present business and future prospects.

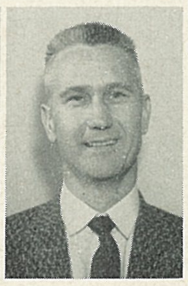
Managers attending the meeting include J. R. Dempsey, Astronautics; C. F. Horne, Pomona; B. F. Coggan, San Diego; and J. E. Arnold, Daingerfield.

General Office representatives will be August C. Esenwein, executive vice president, and E. P. Wohl, vice president-planning.

Cost Reduction Honor Roll

Installed during the last two weeks:





Joint CIP of R. E. Crowder (Dept. 136) left, and E. R. Nielsen (Dept. 139) will save $13,169 a year.



A. L. Fuller's (Dept. 136) ES will save $1,277 a year.

Course Sign-up Begins Jan. 13

Enrollment for Convair San Diego in-plant classes for the spring semester will begin next week (Jan. 13) at SD educational services offices.

Courses to be offered at SD Plant 1 are: blueprint reading and sketching, blueprint reading advanced, second-shift blueprint reading, related technical math, electricity, electronics (math prerequisite), optical tooling, aircraft manufacturing processes, and beginning algebra if demand warrants.

Plant 2 people may sign for: shop math, blueprint reading advanced and basic, optical tooling, flat pattern layout, electricity, electronics (math prerequisite), and basic slide rule.

All classes will be limited to 35 students with the exception of the manufacturing processes course and registration will be open until the classes start.

Complete information will be issued in training bulletins to be posted throughout SD plants or from educational services, Mark Saunders, ext. 491, Plant 1, and Lee Woll, ext. 211, Plant 2.

$1,094 Raised To Help With Medical Bills

Several departments at Convair SD Plant 1 and Plant 2 joined SD cost accounting's special Christmas project this year to raise over $1,000 for a Convair SD woman.

Mary Trotter, timekeeper at Plant 2 on third shift, was surprised with a cashier's check for $1,094 before Christmas to help her take care of the heavy medical expenses of her two older children. Two of Mrs. Trotter's three children, her daughter, Terry, 9, and son, Tommy, just 7, are victims of cystic fibrosis, requiring constant care and medication. (Her younger son, Johnny, 2½, is apparently not afflicted with the disease.)

Timekeeping section of cost accounting first took Mrs. Trotter as one of its Christmas projects two years ago. This year, the entire department joined in and the drive snowballed through other departments in the plant as they heard of her need of help.

"Words cannot express my appreciation," Mrs. Trotter told Convairiety. "It is unbelievable that so many persons would take part in helping me and my family — and I am eternally grateful to each and every one."

Cost accounting raised $90.40; timekeeping at both plants, $246.90. Other departments donating were: Plant 1, Dept. 34-5, first shift; and Dept. 138, first shift; at Plant 2, Dept. 25, third shift; Dept. 215, all shifts; Dept. 216, second shift; Dept. 603-1, and Dept. 603-6, second shift, to raise $575.70. Grand total of donations was $913.

Two lamps donated by June Scott of Plant 1 timekeeping were raffled off for $181.

Toys were given for the children by The Prophet Co., operators of Convair cafeterias, and Vivian Todd of Dept. 93-0 at Rose Canyon.

Pat Paul, Plant 2 timekeeper, chairmanned the committee of 25 spearheading the drive.

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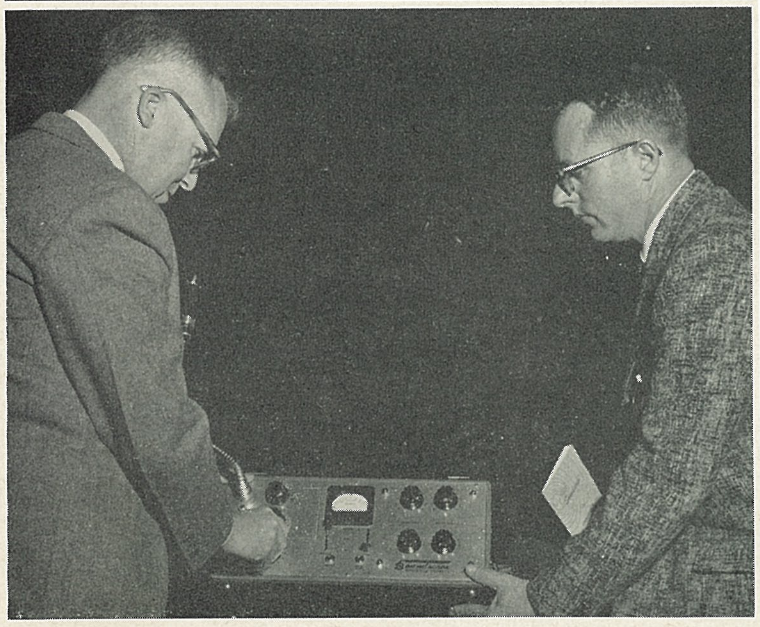
In other Christmas projects at Convair SD, reported before **Convairiety's** presstime, Depts. 134, 135, and 136 had collected $185 as their annual donation to the San Diego Crippled Children's Society.

Dept. 231 at Plant 2 provided a happy Christmas for three families with a total of 14 children, whose fathers were unemployed. Each family received a $50 gift order for groceries.

Engineering people collected $188.73 to help four families. Other engineering groups, including controls design, hydraulics, Dept. 6-90, and 6-41, each donated to a Convair family. Dept. 7 helped a Salvation Army family and Dept. 8 contributed its collection of $358.20 for two Convair families.

Dept. 25, plant engineering, raised $395 for five families with a total of 40 children. Dept. 44 sent its collection to the Hillcrest Receiving Home. Dept. 101 donated to a Convair family.

Dept. 201 helped a former Convair woman and her three daughters; Dept. 266 aided a mother with five children; Dept. 271, a Convair woman and her five children; Dept. 292, a family of six; and Dept. 600-3, a Convair family.



SHARP "EARS"—Doug Wheeler (Dept. 326), research engineer, and Willard Hosier, Palmdale facility safety engineer, operate Soundscope, device for measuring intensity of sound on flight line or in-plant to keep it within safe limits for human eardrums.

★ Convairiety ★

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Pomona Editorial Offices, Room K-222, Bldg. 2, ext. 6226, mail zone 3-8. Staff: James Combs Jr., news editor; Dorothy Keller.

Antelope Valley Editorial Office, Room 103, Bldg. 301 B, Palmdale, ext. 337. Staff: Richard L. Millett.

SD Fishing Club To Meet Jan. 19

Button award winners of the past year will be announced at a reorganizational meeting of the Convair SD Fishing and Boat Building Club Jan. 19 at the CRA Clubhouse, Gillespie Field.

Bob Menzie, Fishing Club commissioner, invited all Convair SD folk interested in fishing or boat building to attend the 7:30 p.m. meeting.

Menzie asked all fishermen interested in participating in the transfer of Florida bass to the upper Otay Lake on Jan. 16 to contact him at AT-1-8247.



HERE'S HOW—H. R. Kennedy, Convair SD chief of service publications, compares recently completed set of manuals for Convair 880 maintenance, service, and operation, which go with each delivered jet transport, with smaller set (at left) compiled for Convair-Liner 440.

First Set of Operation Manuals For 880 Transport Goes to TWA

First set of manuals for operation of Convair 880 jet transports was delivered to Trans World Airlines headquarters at Kansas City, Mo., the middle of last month.

H. R. Kennedy, chief of service publications at Convair SD, together with J. D. Willis, supervisor of commercial manuals group responsible for preparation of the manuals, delivered the first volumes. One set will be supplied with each Convair 880 jet airliner.

Delta Airlines will receive the next set some time this month shortly before it takes delivery of its first 880.

Each set of the manuals contains maintenance, operation, and service data bound into 16 volumes to assist operators of the world's fastest jet transport. Covers feature the 880 design in gold and black. Contents are arranged to conform with Air Transport Association specifications for standardization of all manuals in use by operators throughout the air transport industry.

Kennedy pointed out that 880 manuals are more than four times the overall size of manuals compiled for operation of Convair-Liner 440s. Only about 4,000 pages were required for customer maintenance, operation, and service for each of the 440s, compared with the more than 17,000 manual pages in support of 880s.

Three 880s Fly Certification Tests For FAA at SD, Edwards

(Continued from Page 1)

It was put under loads to simulate the most critical flight conditions at various altitudes and speeds. In July it was moved back to Plant 1 and spotted outside Bldg. 2 where it has been ever since. Experimental factory has the job of incorporating changes to update it to a production model plane. It is expected to be ready for final assembly by the first part of March.)

Plane No. 3, second 880 to fly, went into the flight test program the end of last March for performance testing. It has been put through its paces with John Knebel, test pilot, at the controls for airspeed system calibration, stall speeds, minimum control speeds, takeoff and landing tests, climb performance, powerplant, and thrust reverser evaluation.

It is now at Edwards AFB where it has been in FAA certification testing since the first week in December. A crew of approximately 50 Convair field operations and flight test personnel are on the spot for ground support. This portion of the testing program is due to be finished by the end of this month.

The plane will then go to Albuquerque, N.M., for a week to check its takeoff performance from a high-altitude airport. The Albuquerque airport lies 5,300 feet above sea level.

Last task for plane No. 3 will be checkout of the autopilot for the Delta Airlines 880s.

Plane No. 4 entered the flight test program last August for systems testing. Convair has completed evaluation of the Delta communication and navigation system, electrical, adverse weather, cabin pressurization, and air conditioning systems with W. D. Carrier, production flight test pilot, as captain. It is now bein flown for FAA testing of systems, then will go into functional and reliability testing through March. In this capacity it will be flown a minimum of 150 flight hours on regular airline runs across the United States.

One more production plane will be drawn into the flight test program, probably by next month, for FAA certification testing of the communication and navigation system for TWA planes.

Flight testing of the Convair 600, sister ship to the 880, is scheduled to start in the fall of this year after the first plane comes off the line.

Speed Record Tops '59 News

(Continued from Page 1)

commercial passenger plane in the world.

SEPTEMBER: James L. Kelley, veteran Convair executive, retires; Delta Airlines sends first delegation to San Diego for customer school; high speed parts ordering system goes into operation to back up 880 and 600.

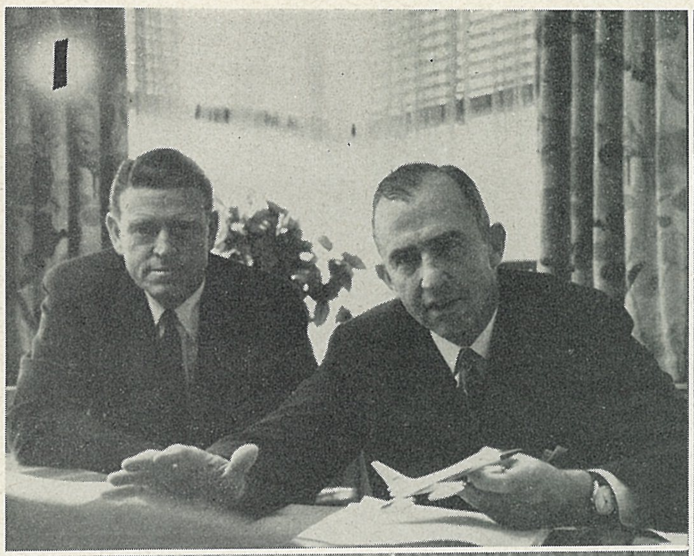
OCTOBER: A. P. Higgins transfers to Astronautics; T-29, converted to airborne frequency monitoring platform, delivered to Air Force; Capital Airlines orders seven 880-M airplanes; new electronics departmental organization announced to further expansion in this field; first cuts on 600 keel longeron made; first components of data handling system, designed and built at SD, delivered to WADC; 498th FIS at Geiger Field, Spokane, becomes first F-106 combat-ready squadron.

NOVEMBER: New engineering reliability section created; "M-Day" calendar goes from 1,000 to 001; plans to build new cafeteria by overpass No. 1 announced.

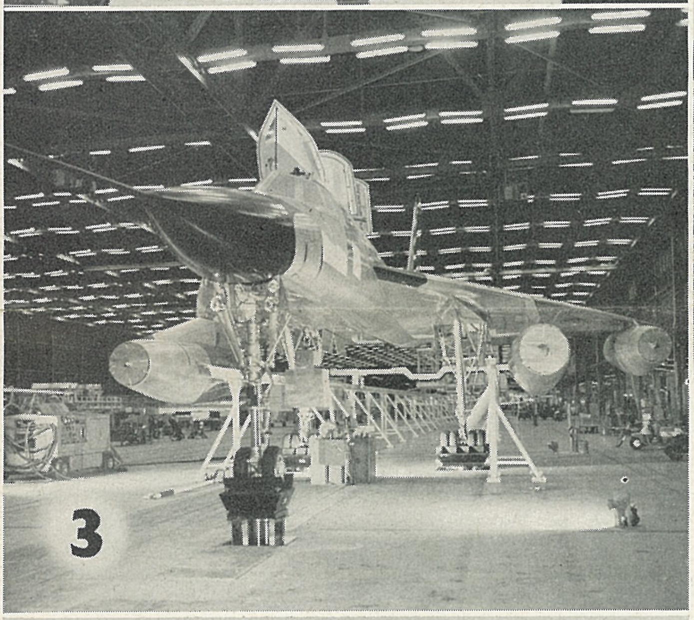
DECEMBER: Last model 440 leaves San Diego on delivery flight to Mohawk Airlines; follow-on order placed for spares for radar systems built for North American; work under way on new type F-106 antenna; Los Angeles to be home base for TWA 880s; F-106 sets world speed mark at Edwards AFB, flying 1,525.95 mph, with Maj. Joseph W. Rogers in cockpit.

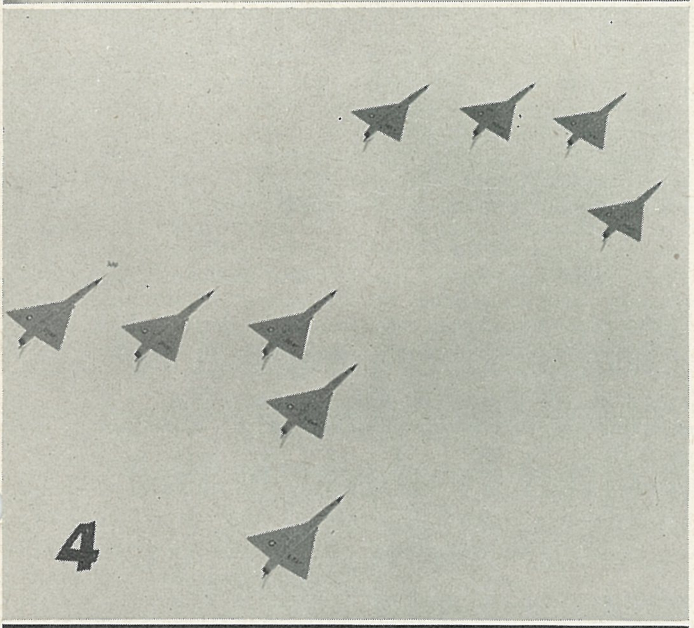
Procedures Group To Meet Tonight

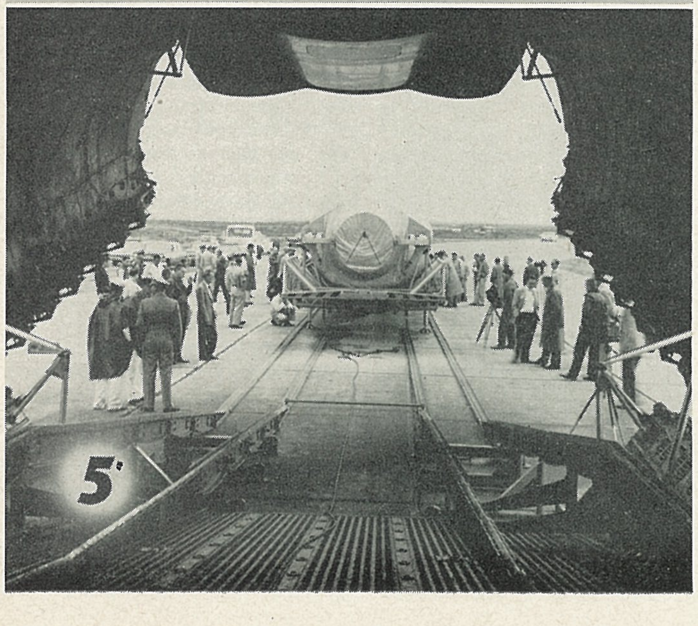
A meeting of the San Diego Chapter of the Systems and Procedures Association will be held tonight (Jan. 6) starting with a 5:45 p.m. social hour at the Admiral Kidd Commissioned Officer's Mess on Harbor Drive.

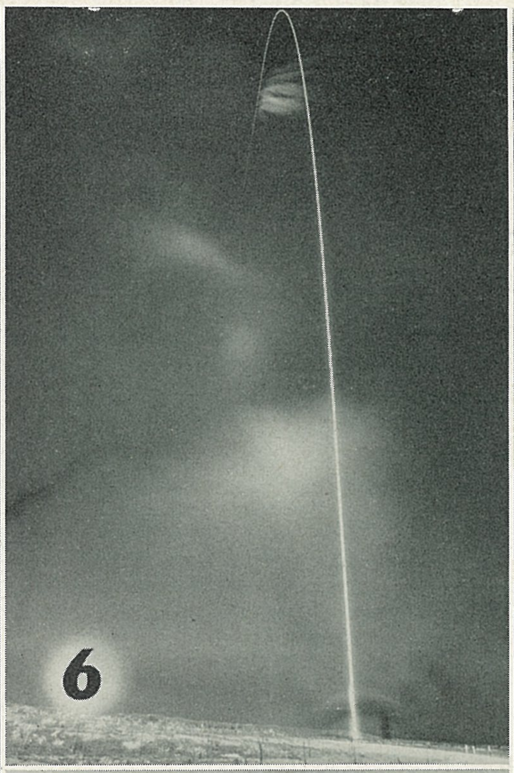


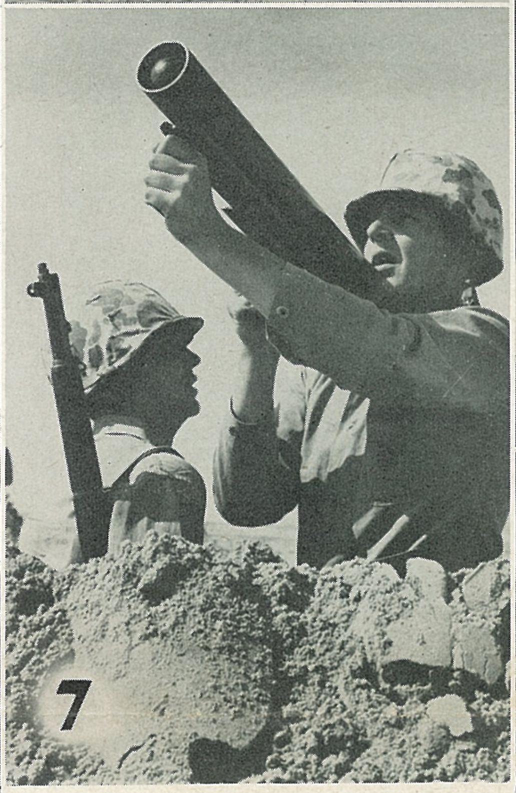


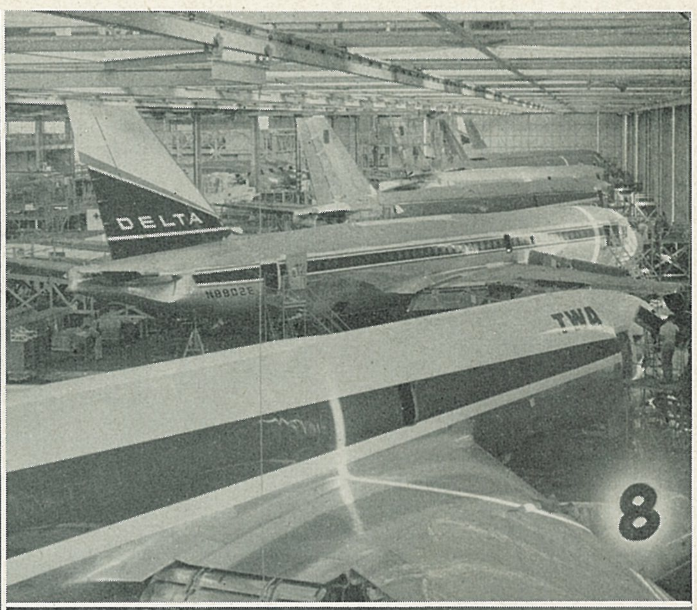






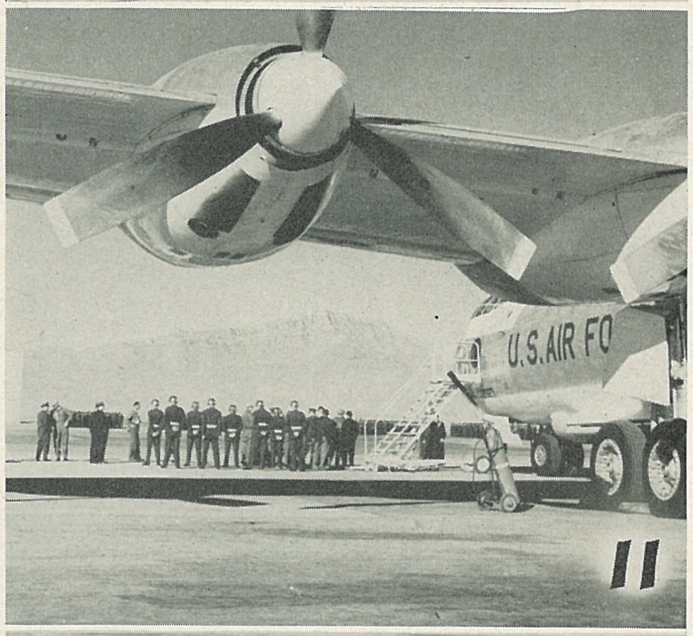














CONVAIR'S 1959

There were two top-level appointments affecting Convair in 1959. May 1, Frank Pace Jr. moved up to chairman of General Dynamics Board of Directors (No. 1, right) and Earl D. Johnson (No. 1, left) succeeded to presidency. Effective Jan. 15, August C. Esenwein became Convair executive vice president, shown in No. 2 with Mrs. Esenwein.

No. 3—B-58 Hustler at Fort Worth (on hydraulic lifts). These airplanes made FW's major news during year.

No. 4—F-106s in formation. Produced at San Diego, these were news producer, too, including new world speed record of 1,525.95 mph.

No. 5—Atlas missile, much in 1959 news, is airlifted from San Diego in this photo.

No. 6—Remarkable time exposure shows flight of first Atlas fired from Vandenberg AFB, Calif.

No. 7—Also in 1959 news was Redeye, new anti-aircraft missile for ground troop use, under development at Pomona operating division.

No. 8—Pride of San Diego operating division was jet 880 which made its first flight Jan. 27. This is assembly line.

No. 9—Cost reduction programs were much in 1959 news. This is San Diego Manager B. F. Coggan, launching "RX" drive while . . .

No. 10—At Fort Worth several highly successful campaigns to cut costs were conducted. Among them was "De-Hoarding." Shown here is "D-Train" that picked up surplus.

No. 11—This was scene at Biggs AFB, El Paso, before last B-36 was taken out of service and turned into public display at Amon Carter Field, Fort Worth.

No. 12—Adam Grik and Lawrence Kashdan of Convair Pomona are shown conducting airways survey at San Francisco International for Federal Aviation Agency, a new line of Convair business endeavor.

An OX-5 Veteran

Cape Canaveral Guard Recalls Trombone Chorus at 200 Feet

A member of the security police at Cape Canaveral is attempting to contact anyone at AFMTC qualified to join an "OX-5 Club."

His letter to **Convairiety** is interesting enough to publish. He is Leslie L. McFarland. Although he works for Pan American, he has been assigned to Convair for the past two years.

"I have been following your continuing history of Convair with great interest, because I had the privilege of flying a few of the airplanes discussed. I flew an S-4 with a Le Rhone engine in 1926. We didn't call it S-4, however. It was politely called a 'Tommy.' There were several other names, mostly not printable. One was 'Flying Physic.'

"Recently I was in hospital for a checkup and the nurse brought me a couple of jiggers of castor oil. I downed them like so much Bourbon, no chaser, no nothing. Even the nurse said 'Is-s-sh-h.' I had to explain I'd at one time been compelled to drink and breathe pure castor oil diluted with gasoline for an hour or more behind a rotary engine. So I'm immune.

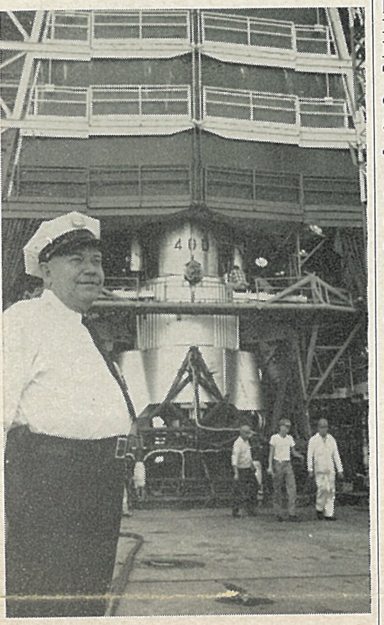
"The object of this letter is to see if you could spare a little space in **Convairiety** to ask if any readers at AFMTC have been in aviation long enough to have been a pilot, mechanic or owner of an airplane powered by the Curtiss OX-5 engine. I would like to organize a chapter of the OX-5 Club at the Cape.

"The OX-5 Club was organized in 1955 to perpetuate the memory of the thousands of pilots who flew OX-5 engine aircraft. The OX-5 was the first standardized aircraft power plant used in great numbers. Also eligible are any who participated in design, construction, repair or maintenance of this grand old engine.

"Club membership is now over 6,200 and we have some distinguished members. When my co-pilot, Alice, and I were at the 1958 convention in Los Angeles I was astonished to find that Tony LaVier and "Fish" Salmon of Lockheed are members. So are Arthur Godfrey, Art Goeble, Jimmie Mattern, Les McFarland (that's me, the only pilot to play trombone at 200 feet from the open cockpit of a Waco 10—two choruses of "I'm flying high, but I've got a feeling I'm falling"). And George Haldeman, president of our Florida wing, who one day in 1927 took a Stinson with a Wright J-4 engine and a beautiful girl named Ruth Elder, several gallons of 80 octane and some sandwiches and flew almost to the Azores. . . .

"I know that the missile industry is a young fellow's field, but there must be several old fuds like me around the Cape who love aviation and hangar flying as I do, and who can qualify for OX-5."

McFarland is on the third shift, Hangar J-K gates at AFMTC. His home phone in Rockledge, Fla., is NE-6-2357.



OX CLUBBER—L. L. McFarland, long-time aviator, now guard at Cape Canaveral, stands near Atlas missile.

Astro's Only

Woman Buyer Handles Needs At Vandenberg

VANDENBERG AFB—Housewives who find trouble keeping small families supplied with purchased items should take heart from the chores of Astronautics' Allidean Payne stationed here.

She buys for a "family" of over 1,000.

Allidean is a buyer, the only woman buyer on Astronautics payrolls.

An average day will find her filling orders for "urgent" items at a rate of 10 to 15 per shift. These may range from nuts and bolts costing only a few cents to tons of gasoline and oil to keep company vehicles moving. She must order these items, then see that they are delivered to the proper places on time. This has often involved dispatching a car and driver as far away as Los Angeles for urgent engineering needs.

Her "bible" is a well-thumbed purchasing guide which lists vendor outlets all over the nation. She may place and receive as many as 30 long distance calls each day.

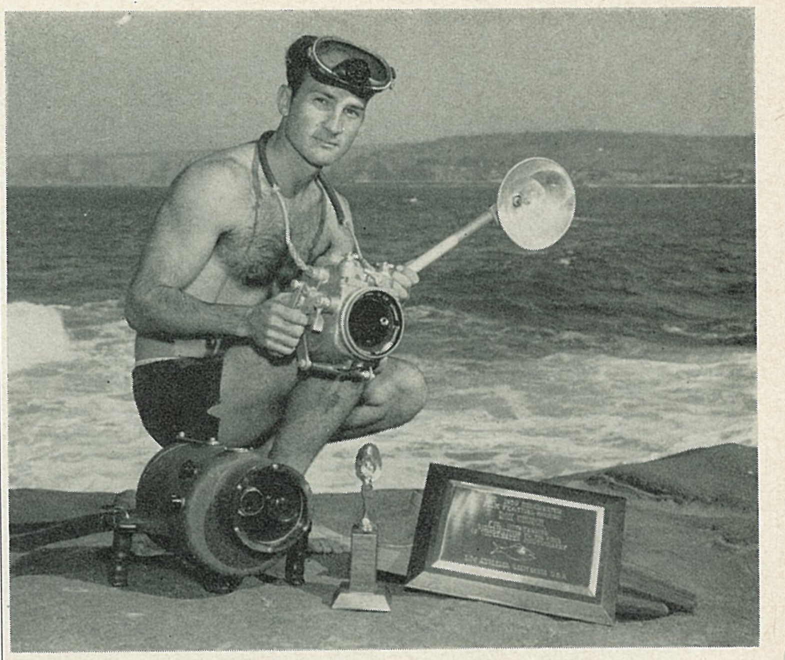
With Convair since 1953, Allidean transferred to Astronautics from Convair San Diego's Palmdale operation in May, 1959. Her first job with Convair was as a tool crib attendant at San Diego. Through the years she has built up a knowledge of the jargon of vendors' wares. She speaks in knowing terms about lumber, paint, steel, electrical fittings and air hoses.

Allidean's day begins with preparing breakfast for husband, Harry, also a Convair employee, and "Maestro," a rare white Chihuahua.

After work she keeps busy making her own clothes as well as sports shirts and jackets for her husband, working with ceramics, tending her vegetable and flower garden and bowling.



ORDER, PLEASE — Allidean Payne of Astro's Vandenberg AFB operations is only woman buyer on Astronautics payrolls. She spends much of her time on telephone, ordering supplies and items for over 1,000 Convair employees assigned there.



SEA EXPLORER—Ron Church, Convair SD photographer, with camera equipment which helped him win title of outstanding contributor in underwater photography for year.

SD Aerial Photographer Wins Underwater Award

A Convair SD photographer, who is as much at home 200 feet below surface as at 50,000-foot altitudes, has been singled out as the outstanding contributor to the field of underwater photography for 1959.

Ron Church of the SD motion picture section received the award at the Underwater Photographic Society's annual Underwater Film Festival last month at San Gabriel. His 15 colored slides of sea life taken in La Jolla Submarine Canyon and off the Coronado Islands in Mexican waters won seven of the ten top places in a field of 300 entries.

His first-place slide showed a large starfish in its natural habitat, while others depicted a horn shark lying on the ocean bottom, minute brittle starfish in a mass, rock scallops, and sculpin. All slides were judged on composition, exposure, originality, and color. Church said that he used a Rolleiflex camera with Rolleimarin housing and 2¼ by 2¼-inch Ektachrome film and a flash for his winning views. Depths ranged from 20 to 140 feet.

In addition to his individual entries, he also was honored as one of the men responsible for shooting and compiling the prize-winning underwater motion picture of the year, "Rivers of Sand." The award went to the firm, Scientific Diving Consultants, for which Church acts as photographic director in his spare time. The film, directed and edited by Church, shows cascading sands tumbling down the walls of a submarine canyon in the Cape San Lucas off the southern tip of Baja California. The phenomenon, long suspected by geologists, was filmed for the first time on an assignment for Scripps Institution of Oceanography.

Church, who first joined Convair SD in the still photo lab in 1956, began skin diving about 10 years ago while still in high school. He combined his two main interests when he later went into the field of photography.

He spent six months last year on a picture-taking trip to the South Seas with a group of divers. He joined the motion picture section of Convair SD upon his return.

He holds two world records for landing single-handed without help a 464½-lb. black sea bass off the Coronado Islands in 1956 and a 43-lb. rooster fish, largest of the species taken with a spear gun, caught in the waters off La Paz, Baja California. Church recalls that one of his few frightening experiences was fighting off a shark attracted by the fish. "I didn't think I was going to make it to shore with my fish," he said.

In explaining the fascination skin diving holds for him, he said, "The bottom of the ocean is a completely different world with every inhabitant engaged in a constant battle for survival. No one can imagine the beauty of sea life or the ever-changing activity under water."

Church also is described by his supervisors as one of their most expert aerial photographers, being one of the few cameramen to fly over twice the speed of sound while taking shots of other planes in test flights.

He says that he has taken pictures at altitudes up to 50,000 feet and at 220 feet under water, the greatest depth he has dived, and can't decide which element thrills him the most.

Convair FW Engineering Recruits Alumni of Many Different Schools

Convair Fort Worth engineers come from practically everywhere, according to figures compiled by J. B. Ellis, FW industrial relations administrator-engineering.

Ellis' statistics show that over the past eight scholastic years, over 1,500 engineers have been recruited from college campuses from Florida University to Utah State.

"And we've hired about 99 per cent of our engineers through formal college recruiting," Ellis said.

But of the total recruited, 83 per cent—or nearly 1,275 engineers—have been taken from only 21 campuses.

Texas University has furnished the most during the 8-year span —222; Texas A & M, 186; and Texas Tech, 90.

They're followed by: Oklahoma University, 67; Oklahoma State, 64; Purdue, 61; Auburn Polytechnic, 59; Louisiana Polytechnic, 58; Kentucky, 52; Louisiana State 50; Georgia Tech, 49.

Arkansas, 42; Alabama, 40; Massachusetts Institute of Technology, 35; Tennessee, 33; Kansas State, 33; Florida, 29; Mississippi State, 27; Michigan, 27; Missouri School of Mines, 25; Illinois, 23.

Twenty-two other institutions of higher learning have furnished a total of 269 engineers—or 17 per cent—of the engineers recruited from college campuses during the past eight years.

This group includes: Lamar Tech; Southwestern Louisiana Institute; Kansas; Vanderbilt; New Mexico A & M; Rice; Tri-State; Missouri; Virginia Poly.

Minnesota; West Virginia; Colorado; Nebraska; Utah State; Parks; Michigan State; Maryland; California Tech; New Mexico; Mississippi; Brigham Young; and Northwestern.

Seven Will Teach Extension Classes

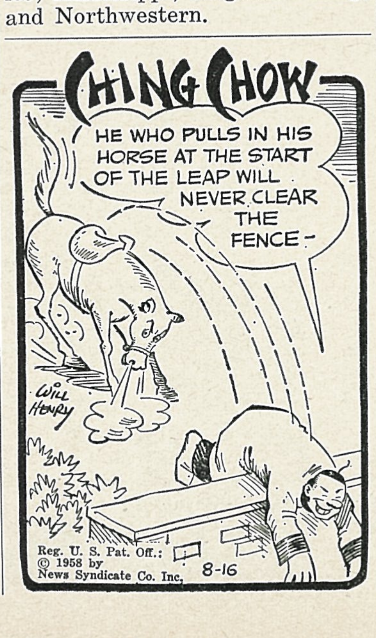
Seven Convair men will serve as instructors in courses being offered by the University of California Extension for engineers preparing for the state professional engineer's examination.

Courses begin in early January.

Instructors include Richard K. Walter, Philip J. Swanson, Robert M. Kuhns, Ernest A. Hamilton, Edward M. Getzoff, James E. Fithian and Carl G. Erickson of Convair.

Courses being offered consist essentially of those solving problems noted in previous examinations.

Information about the program may be obtained from the Extension office at BE-2-7321, SD.



B-58 System Lauded For Speeding Plane To Operational Use

New test procedures put the B-58 into operational use months ahead of schedule, according to a December article in "The Airman," official journal of the AF.

Explaining the weapon system concept of testing, the article said that "under the old system when time was not a factor, it was accomplished in eight phases.

"At SAC's Carswell AFB . . . the B-58 Test Force . . . worked hand-in-glove with Convair engineers and reduced the eight phases to three.

"When the tests were completed months ahead of schedule every component and the whole weapon system had been subjected to every stress and condition that it will ever encounter in real combat."

Increased Social Security Taxes Will Affect Paychecks in 1960

Paychecks will be slightly smaller, generally speaking, this year.

Starting Jan. 1, Social Security taxes deducted from employees' paychecks will be increased from 2½ per cent to 3 per cent of wages earned up to $4,800 per year. Convair's contributions to each employee's Social Security fund will also increase by a like amount.

This year's increase in Social Security taxes is the seventh time these taxes have been raised since 1950. Three more increases are scheduled between now and 1969. The tax goes up to 3½ per cent in 1963, to 4 per cent in 1966, and to 4½ per cent in 1969. All three increases are based on wages earned up to $4,800.

There are two reasons for the past, present and future increases. In the first place, each year more and more people are qualifying to receive old age, disability or survivors' benefits under the Social Security law. This group is growing faster than the country's payrolls. The result is that taxes must be increased from time to time to make up the difference. This condition is expected to continue.

The other reason is that time after time during the past 23 years Congress has added to the cost of the system in various ways, generally by increasing benefits across the board. For example, in the early years of the program the maximum benefits payable were $85 per month. At present the maximum benefits are $254 per month.

This year a person who earns $3,600 will pay $108 for Social Security, compared with $90 last year. For a person who earns $4,000, the amount will be $120, compared with $100 last year. The person who earns $4,400 will pay $132, compared with $110 last year, and the person who earns $4,800 or more will pay $144, compared with $120.

NEWS FROM OTHER DYNAMICS DIVISIONS

General Dynamics Corporation, created in April, 1952, as successor to Electric Boat Company, is composed of six divisions and a Canadian subsidiary, Canadair Limited, of Montreal, airframe builders. The divisions are:

Convair, head offices at San Diego, Calif., aircraft, missiles, and space systems.

Electric Boat of Groton, Conn., submarines.

Stromberg-Carlson, of Rochester, N. Y., telecommunications, electronic equipment.

Liquid Carbonic of Chicago, Ill., carbon dioxide producer, industrial and medical gases.

General Atomic of San Diego, Calif., nuclear research, development, production.

Electro Dynamic of Bayonne, N. J., electric motors, generators.

* * *

Share Owners Okay Dynamics Merger

NEW YORK—The merger of Material Service Corporation of Chicago into General Dynamics Corporation was approved by share owners of both corporations at separate meetings in Chicago, Ill., and Dover, Del., Dec. 29.

The vote among General Dynamics share owners was 7,401,296 favorable and 103,304 against. Material Service share owners voted 55,591 for and 10 against.

Announcement of approval of the merger was made by Frank Pace Jr., chairman of the board of General Dynamics. The merger agreement, Pace said, was filed in Delaware and Illinois, effective at the close of business Thursday, Dec. 31. Material Service becomes the Material Service Division of General Dynamics.

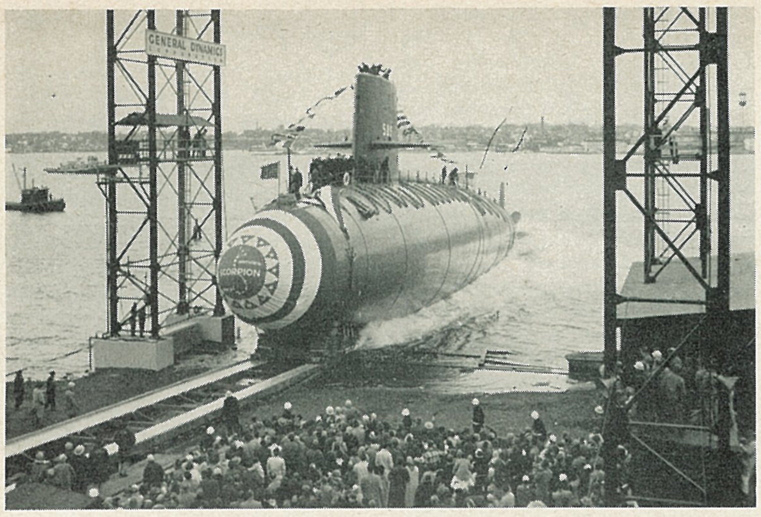
The agreement of merger basically calls for Dynamics to exchange 2,064,516 shares of a new issue of Dynamics convertible preference stock, without par value, for 57,532 shares of common stock of MSC.

At the January meeting of the board of directors of General Dynamics, three new directors, Col. Henry Crown, Hugo A. Anderson, and Fred G. Sherrill, will be elected to represent the holders of the preference stock. The present management policies and personnel of Material Service will be continued. Colonel Crown and other members of the Crown family will remain identified with the business.

Material Service, organized in 1919 by Henry Crown, Irving Crown, and the late S. R. Crown, is a leading mid-west producer and supplier of building materials, concrete products and coal. It is a major supplier of materials to the steel, utility and construction industries.

Pace commented that the merger of General Dynamics and Material Service—one primarily in defense, the other entirely in commercial business—offers vital advantages of long-term growth and development for both.

"The directors of Dynamics believe that the merger of MSC into Dynamics is not only to the immediate and long-term financial advantage of the share owners," Pace said, "but it serves well Dynamics' basic objective of generating commercial earnings that will balance earnings from defense projects."



WITH A SPLASH—Nuclear attack submarine Scorpion slid into Thames River last month, marking a post-war production record for Electric Boat.

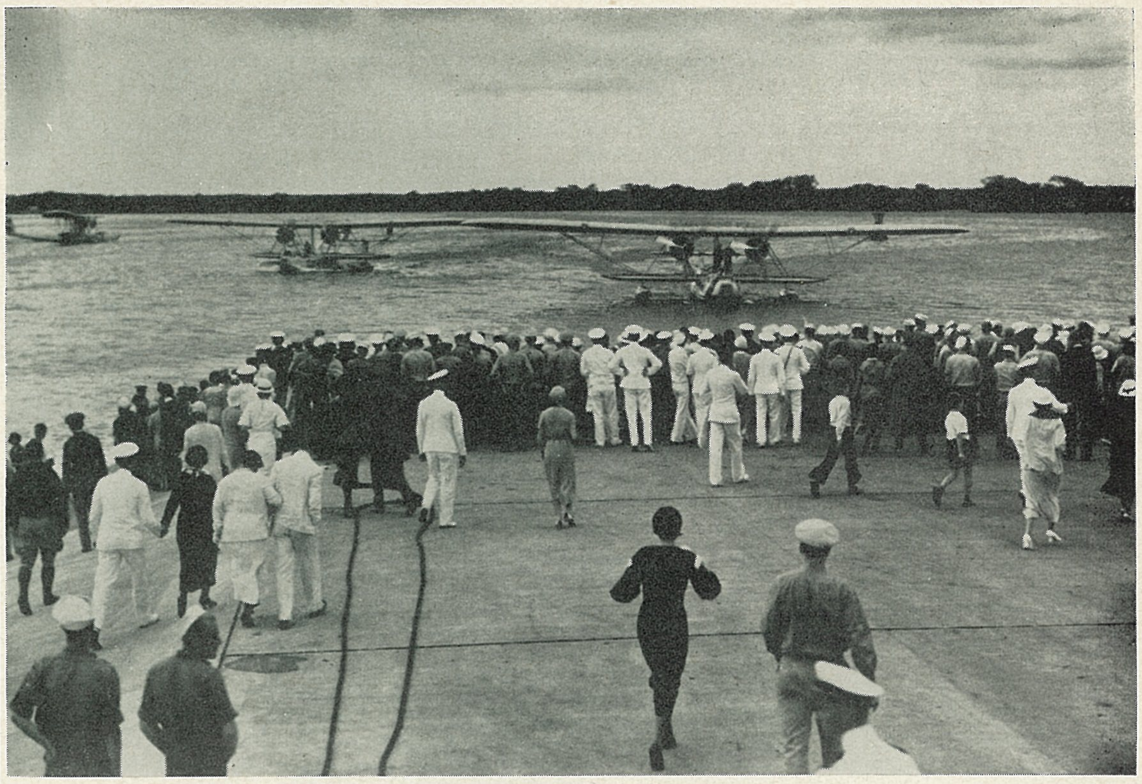
Scorpion Is Third Sub Launched By Electric Boat During Year

GROTON—A peak production year at General Dynamics Corporation's Electric Boat Division came to an end last month with the launching of a nuclear submarine Dec. 19 and the commissioning of another on Dec. 30.

The submarine shipyard's third launching of 1959 took place when the sister ship of the Skipjack, the Scorpion, slid into the Thames River. Eleven days later the high priority Fleet Ballistic Missile submarine, George Washington, was commissioned by the Navy at the shipyard docks.

Both of the December events climax a year of round-the-clock activity at Electric Boat during which the world's first two Polaris firing submarines, the Washington and Patrick Henry were launched. The Washington was completed in a 24-month construction period while the Patrick Henry was readied for launching in 16 months. Currently it is being fitted out for sea trials.

The Washington will be the third General Dynamics-built submarine to be commissioned during the year. The others were USS Skipjack, submersible speedster, and USS Triton, twin-reactor radar picket submarine.



GOAL—Patrol Squadron 10 arrives at Pearl Harbor, Jan. 11, 1934, completing record overwater formation flight, flying Consolidated P2Y-1s. Note tight skirts and Navy "whites."

FUTURE AIRCRAFT DESIGNS SUBJECT OF I.A.S. MEETING

Three Convair SD men will discuss contemporary and future design of aircraft structures at a Jan. 21 meeting of the San Diego section of the Institute of Aeronautical Sciences at 7:30 p.m. in the IAS Building, 3380 Harbor Drive.

Scheduled to appear on the program are Convair SD's H. C. Sullivan, design specialist, materials technical group; Dr. C. Riparbelli, design specialist, structural methods group; and T. L. Heid, senior design group engineer, structures group.

Discussion will involve technical structures problems facing the aircraft industry brought on by ever-increasing flight velocities. Included will be the demand for lighter weight with higher temperature requirements and the "revolution" in materials, bonding agents and design philosophy.

The meeting is open to the public; reservations are not required.

Sullivan will discuss types of insulations suitable for aerodynamic applications. Dr. Riparbelli will give a step-by-step method whereby the effect of "creep" is introduced into a redundant structure. Heid will describe fatigue and fail-safe tests performed on the Convair 880, illustrating his talk with a film on 880 proof-testing and fuselage fatigue testing.

Stromberg-Carlson Wins Reactor Task

ROCHESTER — A contract to conduct a design study and development program for the instrumentation and control package of the PM-1, an air transportable packaged nuclear power reactor being built by The Martin Company, Nuclear Division, for the U. S. Atomic Energy Commission, has been awarded to Stromberg-Carlson Division.



HUMANITARIANS—Frank Pace Jr., chairman of board of General Dynamics and president of National Institute of Social Sciences, presents Gold Medal Award to actress Helen Hayes, one of three honored for "distinguished service to humanity." Others are Dr. Jonas Salk and Laurance Rockefeller.

Non-Stop Hawaii Flight Hailed as 'Magnificent'

(This is the 25th installment in a continuing history of Convair Division of General Dynamics Corporation.)

First production models of the P2Y-1, built by Consolidated Aircraft, were delivered to Patrol Squadron 10 at Norfolk, Va., in 1933. In September Lcdr. Knefler McGinnis led a squadron of six boats on the first of a series of long formation flights that attracted worldwide attention.

The initial non-stop hop was from Norfolk to Coco Solo, C.Z., a distance of 2,059 statute miles. It was completed without incident in 25 hours, 19 minutes. This substantially bettered the previous world mark, set in 1931 when an Italian squadron under Gen. Italo Bilbo flew the South Atlantic from Africa to Brazil, a distance of 1,864 miles.

Early in January, 1934, the squadron flew north to Acapulco, Mexico (1,667 miles) and thence to San Diego (1,616 miles) where preparations were completed for a flight from San Francisco to Hawaii. This 2,400-mile stretch of sea had been bridged several times by single planes. The first successful flight was made June 28-29, 1927, when Army Lts. Lester J. Maitland and Albert F. Hegenberger flew a tri-motored Fokker from Pakland to Wheeler Field in 25 hours, 50 minutes. But the P2Ys would be attempting by far the longest overwater formation flight yet projected.

The squadron took off from San Francisco Bay the afternoon of Jan. 10 with some difficulty. The boats were heavy with 1,750 gallons of fuel each, and there was almost no breeze. They headed west through the Golden Gate (where workmen building the new suspension bridge stopped to watch) at 2:22 p.m. McGinnis and his co-pilot, Cdr. Marc A. Mitscher, led the boats through a long night of almost continuous blind flying in thick overcast. Visibility improved after dawn and at noon the formation swept in past Diamond Head, crossed over Honolulu at 1,000 feet and flew on to Pearl Harbor. The planes dipped their wings while passing John Rodgers Field, in memory of the first naval officer to attempt the route. (His seaplane was forced down 450 miles short of his goal. The crew rigged a sail and nine days later, when within sight of the islands, a submarine spotted the craft and took it in tow. A member of the crew on that flight is W. M. Bowlin of SD Dept. 6-21, whose story appeared in **Convairiety**, May 21, 1952.)

The lead boat alighted off Ford Island at 12:29 p.m. and the last at 12:37. Elapsed time was 24 hours, 56 minutes for a distance of 2,408 miles. Territorial Gov. Lawrence M. Judd headed a welcoming committee that decorated the 30 officers and men with leis. A crowd of 1,500 persons broke through barriers to surround the ramp.

From Washington, President Franklin D. Roosevelt sent McGinnis congratulations for "the greatest undertaking of its kind in the history of aviation . . . a magnificent accomplishment." In Rome, high officers of the Italian Air Ministry expressed admiration and told the press the flight foretold the preponderant part aircraft would play in warfare. In Tokyo, a Japanese Navy Officer spokesman noted the increased power such aviation developments gave mankind and added: "It remains to be seen whether these powers will be used beneficially or destructively."

At Buffalo, Reuben Fleet, president of Consolidated Aircraft, saw the flight as "ample proof that we are not far from transoceanic air transport commercially. I believe that such air lines to Europe will be in use within two years."

Fleet's forecast was basically sound, although international jockeying over routes delayed Pan American's first commercial flight to Europe until July 8, 1939. In the Pacific, air mail service from the West Coast to the Philippines was launched Nov. 22, 1935, and passenger service followed in 1936.

SD Mother Enjoys Guam Xmas Reunion

A Convair San Diego woman flew thousands of miles across the Pacific Ocean to join her family at Christmas time. Ruth Rawlings of Dept. 197-1 spent two holiday weeks in Guam with her husband, Harry, and her daughter and family, including three grandchildren, whom she had not seen for the last year and a half. Rawlings and his son-in-law, E. R. Molloy, both in the U.S. Navy, have been stationed at Guam during that time.

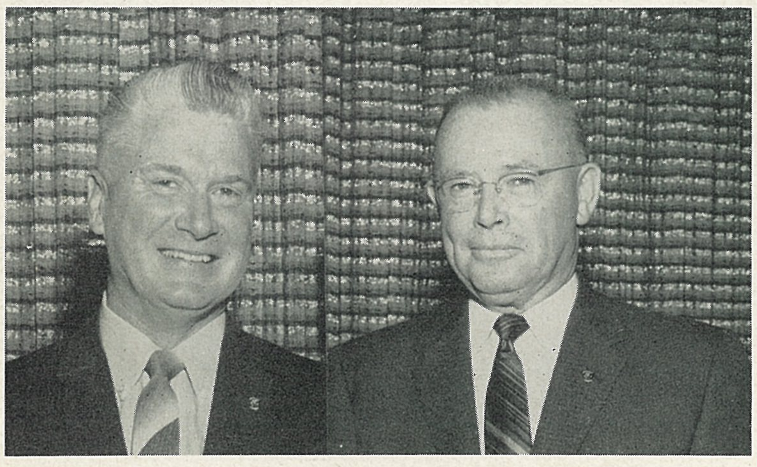
Dept. 197 people in Bldg. 33, Plant 1, gathered to give Mrs. Rawlings a departure party the week before Christmas.



"I'm appealing to your better self—the one who signs the checks."



CONGRATULATIONS—H. G. Golem, Convair's director of procurement, receives congratulations from R. H. Biron, vice president-administration, left, and President J. V. Naish, right, on completion of 30 years service early last month.



TWENTY-FIVE—F. H. McLaughlin, superintendent, left, and J. L. Wainwright, chief of structural design, Convair SD, received 25-year service emblems last month.

Log Book Entries

Service Emblems

SAN DIEGO

Service emblems due during the period Jan. 1 through Jan. 15.

Thirty-five-year: Dept. 192-7, R. S. Carson; Dept. 406, E. H. Wesp; Dept. 603-1, Eugene Bitzer.

Twenty-year: Dept. 6, C. W. Chapman, J. B. Franklin, W. A. Pickens, D. D. Strange; Dept. 14-8, A. P. Sutton; Dept. 25, Carlo Bommarito, L. G. Mulryan, E. H. Schaller; Dept. 31, M. H. Peet; Dept. 123, H. B. Bender; Dept. 180, C. A. Bricknell; Dept. 197-3, G. W. Just.

Fifteen-year: Dept. 3-1, J. E. Thomson; Dept. 8-1, C. E. Hobson; Dept. 14-4, P. L. Willis; Dept. 34-1, C. W. Robinson; Dept. 144, G. R. Wilcox; Dept. 145, C. D. Herrera; Dept. 267, B. M. McClure; Dept. 271, O. L. Huffman; Dept. 400-1, Mariana C. Costantino; Dept. 603-7, C. R. Livingstone.

Ten-year: Dept. 1-64, J. C. Ward Jr.; Dept. 6, R. A. Sherman, R. G. Wright; Dept. 7-10, Vivian D. Moser; Dept. 14-8, W. J. Beers; Dept. 93, Leta R. Tinnin, Dorothy N. Weaver.

Dept. 133, Ann C. Gwathmey; Dept. 143, H. P. Wing; Dept. 145, J. E. Humphrey; Dept. 160, Antonio Rios; Dept. 205, P. E. See; Dept. 216, Opal H. McClure; Dept. 218, Helen S. Becht, Gloria L. Garcia, Vivian H. Hughes, P. C. Perdomo.

Dept. 231, Thelma C. Marchant; Dept. 233, Alma B. Davenport; Dept. 288-5, J. P. Trainor; Dept. 292, Carolyn E. Breese, Lola G. Bryan, K. O. DeVeer; Dept. 403, R. A. Goad; Dept. 603, D. C. Cooper, Viola W. Whitten, D. C. Zaworski.

Promotions

SAN DIEGO

Promotions to or within supervision effective Dec. 21:

Dept. 7, Electronics: To research group engineer, J. H. Kluck. To electronic project engineer, J. E. Bowen, J. C. Orthel, H. Stern, R. H. Varian. To asst. test group engineer, H. F. Eichenberger.

Dept. 31, Experimental: To asst. foreman, R. E. Bowman.

Dept. 190-2, Manufacturing Development: To manufacturing development supervisor, A. E. Crom.

Lost & Found

SAN DIEGO

FOUND—Lady's gold wedding band inscribed "J to B with love 12-25-58," near bus stop at foot of overpass No. 1, Plant 1. Owner may call Gertrude, ext. 2923 or 479, Plant 1.

Personals

SAN DIEGO

I am most grateful to my Convair friends for the many calls, cards, and flowers during my stay in the hospital and my convalescence at home.

Clyde L. Good, Dept. 403.

★ ★ ★

Our sincere and heartfelt thanks to the many Convair friends and co-workers of Harold H. Crail for the kind expressions of sympathy and beautiful floral offerings. The children and I are deeply grateful.

Mary Crail

Births

SAN DIEGO

PAUL—Daughter, Susan Quinn, 6 lbs., 10 oz., born Dec. 21 to Mr. and Mrs. R. A. Paul, Dept. 145.

WHALEN—Daughter, Teresa Lee, 7 lbs., 13 oz., born Dec. 18 to Mr. and Mrs. W. G. Whalen, Dept. 6.

Deaths

SAN DIEGO

RAKER—Lorin L., Dept. 8. Died Dec. 25. Survived by wife, Mary M. Raker.

SIMMONS—Louis R., Dept. 31. Died Dec. 24. Survived by wife, Nina M. Simmons.

Choralaires Firm Three More Dates

Convair SD Choralaires, CRA mixed chorus, will continue their busy December schedule into 1960 with at least three appearances during the next few weeks.

On Jan. 20 the Choralaires will sing at a meeting of the Convair SD Management Club in the Balboa Park Club. On Jan. 29 the Convair chorus has been engaged for a capping ceremony of vocational nurses at Grossmont Hospital. An appearance before members of a local Masonic Lodge is scheduled for Feb. 4.

Quarterly Contest Set by Lens Club

Still life photo entries will be judged at the fourth quarterly contest of the Convair SD CRA Camera Club Jan. 11 in the Balboa Park Photo Arts Bldg.

Ron Ainsworth, club spokesman, said Earl D. Beebe of the Lens Art Club of San Diego will judge entries at the 7:30 p.m. meeting.

Jim Reid was elected president of the lens group at a meeting last month. Rounding out the new officer slate are Joyce Currie, vice president, and Ray Grant, secretary-treasurer.

Ice Skating Goes Back on Schedule

Ice skating sessions will go back on the regular Thursday night schedule tomorrow (Jan. 7) after being disrupted by the holidays, Martha Woodberry, CRA commissioner, reports.

All skating enthusiasts at Convair SD are invited to attend the sessions held at Iceland, 6055 Lake Murray Blvd.

Free lessons are offered between 6:30 and 7 p.m. for beginners and advanced skaters. Special Convair rates prevail between 6:30 and 7:45. Convair skaters can continue until 10 p.m. without additional charge.

SD Man to Attend Softball Meeting

Gil Crosthwaite, veteran CRA softball commissioner at Convair SD, will represent the San Diego metropolitan district at the annual convention of the Amateur Softball Association of America which starts Jan. 28 in Miami, Fla.

Purpose of the convention, attended by representatives throughout the country, is to discuss bylaw and constitutional changes and set tourney dates and locations for the ASA regional and world's softball tournaments.

In 1959, Crosthwaite said, 10,000 softball teams from the United States, Canada and Cuba participated in ASA district, regional and world tourneys. Six Convair SD players were members of the La Mesa Big Shots, a team that tied for sixth place in the world's tourney in Clearwater, Fla.

Square Dance Set For 'Old Timers'

Past and present members of the Convair SD Hoedowners will join forces at a special "Old Timers" dance Jan. 23 at the University Heights Community Center, 4044 Idaho St.

Past club membership cards and badges will be honored at the door. Many of the older steps and patterns will be called at the dance which starts at 8 p.m.

Maury Scholz, Hoedowners co-commissioner, said club member, Stan Fandel (Dept. 401), has been appointed to represent the CRA group at meetings of the San Diego Square Dance Assoc.

Winners of holiday turkeys or hams at drawings conducted by the beginners and advanced classes last month were E. J. Clarkson, Muriel Oswald, Carl Bishop and C. E. Jones.

Members Repeat For Pistol Team

All four members of the Convair SD Pistol Club team will retain their positions during the next three months by virtue of top aggregate scores registered during national match events.

Repeat team winners with aggregate scores are B. L. Broadway (Dept. 603), 842; Jim Halfacre (Dept. 180), 796; Joe Williamson (Dept. 401), 785; and Ralph Picard (Dept. 7), 731.

Broadway continued to pace shooters at a meet Dec. 27, sweeping both the regular and national match events. Picard won top honors in the police course expert class and Harvey Ingalls (Dept. 6) ranked first in the sharpshooter category.

Gardeners Re-elect Everett Henderson

Everett Henderson will head the Convair SD Garden Club again for the coming year following his recent re-election as president, announced E. L. Zimmerman, CRA commissioner.

Mrs. Ann Freedman was chosen secretary, and Walter McVay, re-elected publicity chairman.

Nearly 60 grownups and children enjoyed the annual family Christmas party Dec. 9, said Zimmerman.

Delta Pilot Guest At Archery Shoot

Convair SD Archery Club counted the president of the Georgia Field Archer's Association among participants at a shoot Dec. 13 at the San Diego Field Archer's Range at Singing Hills.

E. S. "Bud" Adair, a Delta Airlines pilot taking a Convair 880 training course, used a borrowed bow to register one of the top Class "A" scores. Adair's home archery range is in Atlanta, Ga.

Al Phipps won first place in the meet to pace Convair SD bowmen. Second and third place winners, determined on a percentage basis, were John Platt and Warren Osborn.

New Ballroom Dance Classes Now Starting for SD, Astro

Expanded ballroom dancing activities begin this week and next under joint sponsorship of CRA at San Diego and Astronautics.

All sessions are held at Pacific Ballroom, downtown, under the direction of Grace and Bill McGrath, veteran dance instructors.

Friday (Jan. 8) a new Latin class begins for adults at 8:30 p.m. It includes cha-cha, rumba, samba, tango, etc. Monday (Jan. 11) a new adult brush-up and beginning Latin course opens at 8:30 p.m.

A new feature of the dance program, offered for the first time, is a free practice session planned for 7:30 p.m. each Tuesday. All adult dancers are offered free use of the hall and music for practice and social dancing.

Several existing classes will continue and will enroll new students beginning next week. At 7:30 p.m. each Monday an intermediate adult class features smooth dancing and some Latin dances. Thursdays, at 7:30 p.m., teen-agers take over for mixed dancing as well as party and date decorum. At 8:30 the same night an advanced adult class is held for those with previous instruction. Fridays, at 7:30 p.m., a special intermediate adult class is being offered for those who have completed beginner's or brush-up work at one time or another.

Wednesday evenings are reserved for private instruction, also offered to Convair employees at reduced rates.

Through CRA subsidy, all classes are offered at rates much lower than those found elsewhere. There are no contracts involved. Students pay by the month.

New and old classes will be open for three weeks, then closed. Other classes will be offered in April and September.

Singles, as well as couples, are welcome at all classes.

Class Observes Mexican Xmas

Christmas in the Mexican style was the theme of the final session of the beginning Spanish class sponsored by CRA at Convair SD.

Twenty-five SD students met at the home of Mr. and Mrs. C. D. Lane Dec. 17 for a true Mexican holiday affair with Mexican songs, food, and traditional customs.

Two pinatas filled with Mexican candies were the center of attention while J. M. Hardison (Dept. 15-1), instructor, explained the origin of the age-old game. The pinatas, together with a $35 donation and canned goods, were given to the Casa Cuna Children's Orphanage in Tijuana.

"I feel that everyone in the beginning class has acquired a good foundation for a working knowledge of Spanish conversation," said Hardison. "Those taking the course have made remarkable progress in the short period of time we've conducted the class and all are definitely familiar now with correct Spanish pronunciation."

Most of the class have signed for the new intermediate course which starts tomorrow (Jan. 7) in Room 4 of the Conference Bldg., Balboa Park. Another beginners' class and an advanced class are being held Monday evenings. Each class meets from 7 to 9:30 p.m. one day a week.

FEBRUARY DATE FOR JEEP 'RUN'

Guests from as far away as San Francisco and Arizona are expected to participate in the annual "Rough Riders Run" Feb. 6 and 7 sponsored by the San Diego Ridgerunners in conjunction with the Convair SD Jeep Club.

Jeepsters will leave Truckhaven on Hwy. 99 at 8 a.m., strike out cross-country to Ocotillo and dry camp overnight.

All Convair SD persons owning four-wheel drive vehicles are invited to participate. A $2 entry fee covers cost of any towing and first aid that may be required. Members also benefit because of two-way radios installed on some jeeps that enable leaders to maintain complete control of column at all times.

Advance registration for the "Rough Riders Run" is not necessary. Persons interested in joining the Jeep Club should contact Thomas Binder, AT-4-0295, after 4 p.m.

'Pro-Guest' Night Slated By Golf Club

Four of the top professional golfers on the tourney trail will be guest speakers at the second annual "Pro-Guest" night sponsored by the Convair Golf Club Jan. 29 at the Catamaran Hotel, 3999 Mission Blvd.

Art Wall, last year's top money winner, Billy Casper, national open champ, Mike Souchak and Dutch Harrison will be on hand to answer questions and discuss their exploits. The affair starts with social hour at 6 p.m., followed by dinner at 7.

Tickets, priced at $4 each, will be available on a first-come, first-served basis to all Convair SD and Astro folk and their guests.

Inquiries on tickets and other particulars should be directed to one of the following: Astro, Hal Purnell, ext. 1313; SD Plant 1, Curley Maxfield, ext. 694; SD Plant 2, Alma, ext. 218.

Toastmistress Club to Install New President

Marge A. West of Convair SD Dept. 6-35 will be installed as president of the Delta Toastmistress Club next Tuesday (Jan. 12). The 7:30 p.m. dinner and installation ceremony will be held at the San Diego Club.

Other officers to be installed are Catherine Whelan, vice president; Roxanne Miller (SD-Dept. 1-65), secretary; and Sabine Cummings, treasurer.

Fran Leland of the AF office, chairman of Council 7, will be guest speaker, choosing as her subject, "The Point of No Return." Rosalie Rothblatt, past president of the Suburban Toastmistress Club, will be installing officer. Joyce Simon (SD-Dept. 2-2) will serve as toastmistress for the evening.

Any Convair SD or Astro woman interested in self-improvement, learning effective public speaking, leadership ability, and gaining self-confidence should contact Martha Woodberry, membership chairman, at ext. 1245, SD Plant 1.

500 Sharpshooters Compete For Wide Variety of Prizes

About 500 SD and Astro sharpshooters competed for a wide variety of prizes in one of the most successful Christmas shoots ever staged by the CRA Gun Club at Convair SD, Jack Swank, commissioner, reported.

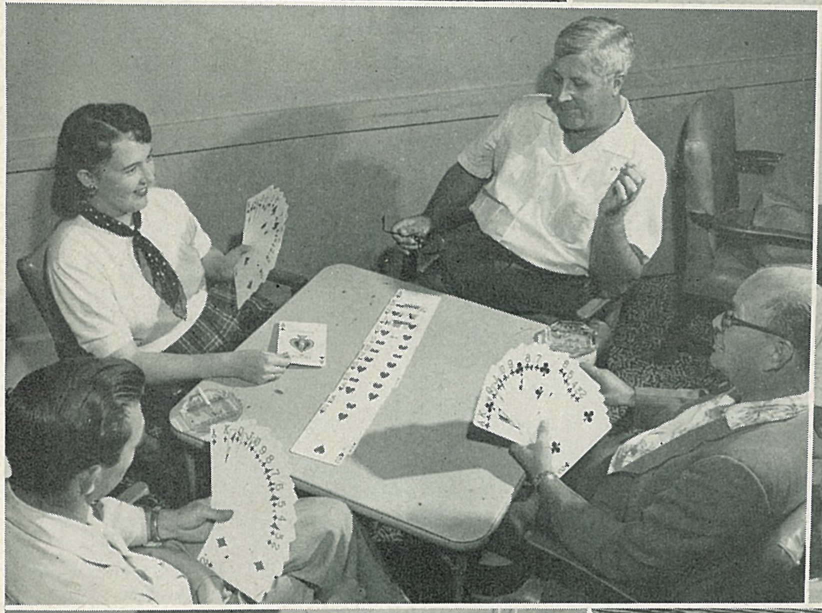
"Our third annual holiday shoot proved to be one of the best money-makers for CRA that we've ever held," he said.

Entries in skeet, trap, and rifle competition shot for the 200 prizes, including turkeys, hams, all types of merchandise from sets of dishes to boxes of cigars, and gift certificates at the two-day shoot, Dec. 19-20, at the Gillespie Field range.

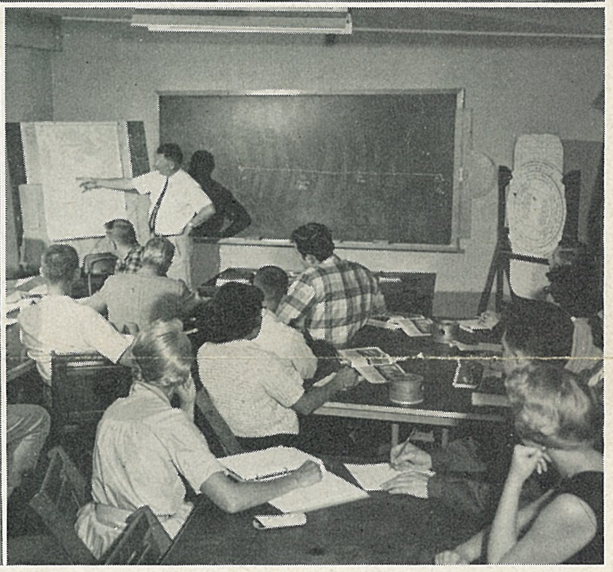
Plans are now under way for the next big Gun Club event, a registered shoot which will be held some time in February.









SPORTS HIGHLIGHTS—Convair SD Recreation Association continued tradition of "an activity for everyone" during 1959. Above pictures, taken at random from '59 *Convairiety* issues, depict but eight of more than 40 clubs open to SD folk. Most of photos have obvious connection with corresponding activity. Just in case, however, top left is Radio Club; center right is Rockhound Club; lower center is group shot of CRA commissioners; lower right is Solo Flyers' ground school class.

'Seat' Rally This Sunday

Preparation to accommodate a near-record number of entries for the annual "Seat of the Pants" rally this Sunday (Jan. 10) have been completed by the Convair SD Sports Car Club.

Club officials expressed hopes that the turnout would approach the record of 191 entries set last year. All mail entries are being acknowledged and given starting times. Post entries, however, will be accepted the day of the event.

The rally this year will cover 75 miles of paved road, take about three hours to complete. First car will leave the Astro parking lot at 12:01 p.m. Finish will be at the Wagon Wheel Restaurant in Santee.

All Convair SD folk will be able to enter the rally without charge. Guests will be required to post a $1 entry fee. Three trophies will be given in both beginner and novice categories.

General instructions will be given at the starting line at 11:30 a.m.

Next meeting of the Sports Car Club will be held tonight (Jan. 6) at 7:30 p.m. in the Natural History Museum, Balboa Park. It will be a social affair with refreshments.

DEADLINE FRIDAY FOR GOLF SWEEPS

Registration closes this Friday (Jan. 8) for the first 1960 Convair SD CRA golf sweeps which will be played Jan. 16-17 at Circle "R." To place entries call ext. 1705, Plant 1.

CRA Sports & Recreation Convairiety

SD Girls' Hoop Squad Takes Tourney Title

Convair SD girls' basketball team is stealing the limelight this season in pre-season tourney competition.

Late last month the Convair girls climaxed their unblemished tourney record by bowling over T.O.T.s for the championship, scoring 70 points in a game that was called with three minutes of playing time remaining because the T.O.T.s team fouled out too many players.

Leading the Convair girls in the 70-26 victory were forwards Joyce Currie, who dumped in 30 points, and Jean Todd who accounted for 22. Other team members are Virginia Sapp, Irene Dionne, Corky Dowdy, Nadine Prior, Dottie Wisswell, Nita Evans, and Joan Petersen. Coach of the Convair team is Mary Spall, director of women's activities for the 11th Naval District.

Regular play for the women's league will start Jan. 11 on a Monday and Wednesday evening schedule at either 7 or 8:15 p.m. at Hoover High School gym.

★ ★ ★

Fortunes of both Convair SD varsity teams entered in the San Diego pre-season city tourney turned sour after initial victories.

Tool Manufacturing bowed out in the quarter-finals of the losers' bracket; Convair made it to the semi-finals before being eliminated.

Gil Crosthwaite, CRA basketball commissioner, said tentative arrangements have been made to enter both Convair hoop squads in the Industrial "A" league which will start play the week of Jan. 26 in the Muni Gym, Balboa Park. Games will be played evenings, Monday through Friday. Spectators are invited. Daily papers will list dates and times.

★ ★ ★

League play for shop league basketball at Convair SD will start tonight (Jan. 6) at the Balboa Park Muni Gym on Court 3. Seven teams are entered in the league; games will be played each Wednesday evening at 6:50, 7:55 and 9.

A total of 22 shop league basketball squads from SD and Astro participated in a pre-season tourney last month. Convair SD's Dept. 137 won the winners' bracket of the double elimination tourney. In the losers' bracket, Astro Dept. 597 came out on top.

CRA Calendar

(Convair SD Recreation Association has some 40 activities in operation. For information on SD sports, call CRA headquarters, ext. 1245, Plant 1.)

BADMINTON—Open play for families Tuesday evenings at 7:30 in Balboa Park Federal Bldg.

BRIDGE CLUB—Next session Tuesday (Jan. 19), 7:30 p.m., Hotel Barcelona, Fourth and Juniper.

CAMERA CLUB — Quarterly contest Jan. 11, 7:30 p.m., Balboa Park Photo Arts Bldg.

CHORALAIRES — Rehearsals each Monday evening at 7:30 in CRA Clubhouse on Pacific Hwy.

GOLF—Entries close Friday (Jan. 8) for Convair SD CRA sweeps Jan. 16-17 at Circle R. Call ext. 1705, Plant 1.

GARDEN CLUB — Meeting Wednesday (Jan. 20), 7:30 p.m., Floral Assoc. Bldg., Balboa Park.

ICE SKATING—Convair night every Thursday; discount rates between 6:30 and 8 p.m. at Iceland, 6055 Lake Murray Blvd.

JUDO—Workouts every Thursday, 7:30 p.m., CRA Clubhouse on Pacific Hwy.

MOVIES—Reduced price movies each Tuesday night at Academy Theater, 3721 University Ave. Jan. 12—"3:10 to Yuma," and "Gun Runner." Jan. 19—"Horrors of the Black Museum," and "The Fly." Admission: adults, 25¢; children, 15¢.

RADIO CLUB — Meeting tomorrow night (Jan. 7) at 7:30 in Harbor Drive headquarters.

ROLLER SKATING — Skate night Monday (Jan. 18) at Skateland, Front and G Streets, 6:30 to 9:30 p.m. Free tickets at employee services, both plants, and from departmental representatives.

SPANISH CLASSES — New schedule for beginners, intermediate and advanced students starts this week.

SPORTS CAR CLUB—"Seat of Pants" rally Jan. 10; first car leaves Astro parking lot at 12:01 p.m. Meeting tonight (Jan. 6), 7:30 p.m., Natural History Museum, Balboa Park.

SQUARE DANCING — "Old Timers" dance Jan. 23 at 8 p.m., University Heights Community Center, 4044 Idaho St.

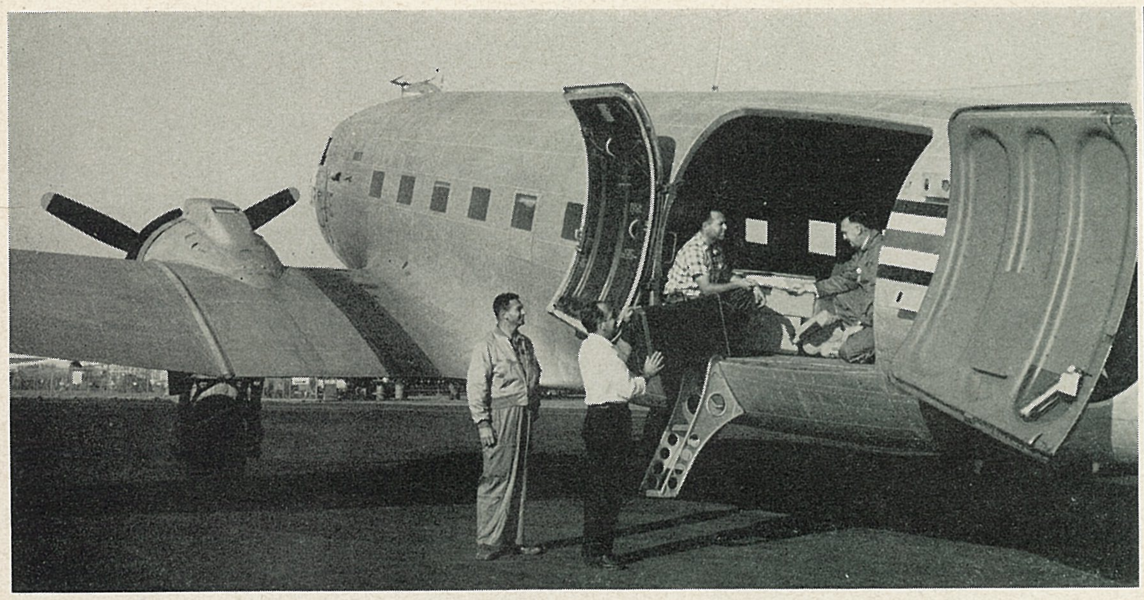
STAMP CLUB—Next meeting tomorrow (Jan. 7), 7:30 p.m., Balboa Park Conference Bldg.

Three Attractions At Discount Price

Tickets for three coming San Diego attractions, discounted 20 per cent on all seats, are now on sale at Convair SD employee services, Plants 1 and 2.

The trio includes the Jan. 30 performance at 7 p.m. of "Porgy and Bess" in the Capri Theater; the Feb. 21 staging of the comic opera, "Voyage to the Moon," at 8:30 p.m. in Russ Auditorium; and personal appearance Feb. 23 of guitarist Andres Segovia at 8:30 p.m., also in Russ Auditorium.

Tickets will be on sale until date of performance.



READY TO GO—Vincent Gann Jr., SD pilot (at left), watches R. H. Browning and Peter Goetz of SD engineering test base load C-47 for hop to a Convair off-site base. At right is R. W. Adkins, SD pilot, receiving shipping papers.

'Hot Parts' For Repair Of Test Planes Flown By Convair SD 'Airline'

"Flying the mail" is the job of a small group of pilots and co-pilots at Convair San Diego.

Daily chore for SD production flight crews is to make the hops which keep San Diego and Astronautics plants in direct contact with their outlying test bases at Palmdale, Edwards AFB, Vandenberg AFB, Calif., and Holloman AFB, N. M.

Based at Convair SD are four planes supplied by the Air Force on a "bailment" (or loan) basis for support of AF programs under contract with Convair. Two Twin Beechcraft C-45s and two Douglas-built C-47s are carrying important cargo—"hot parts" for repair or replacement on Convair planes undergoing testing, top-priority mail, and—when there is room—Convair or Air Force passengers.

Oldest, in length of service, of the present cargo fleet, the C-47 No. 49-525, was assigned to Convair in October, 1953, for support of the F-102 program. The other three have been acquired since 1956 during build-up of the F-102, F-106, and Atlas ICBM programs.

All of the planes are two-engine craft carrying a crew of two, pilot and co-pilot. Pilots of W. B. Harwell's production flight department at SD rotate on the morning and evening flights.

The two C-47s make two daily round trips between Vandenberg AFB and San Diego and Palmdale-Edwards and San Diego. The Vandenberg plane, although leaving from Lindbergh air strip, lands at Montgomery field on each return for unloading Astronautics cargo and passengers.

A Holloman flight is made once a week, usually on Tuesday or Thursday. The two C-45s are kept at ready on a stand-by basis to fill in whenever needed for the C-47 flights, or to transport pilots or Air Force personnel.

The Beechcraft C-45s can accommodate four or five passengers and a few hundred pounds of cargo. The larger C-47s, equipped with bucket seats, can carry about 20 persons or 5,000-6,000 pounds of cargo.

In one month the C-47 on the Palmdale-Edwards route carried approximately 71,000 pounds of cargo and 200 passengers, according to records of W. S. Rees of the engineering test base office.

Since they have been in service with Convair, the four planes have totaled 4,249 flights and 14,101 hours in the air without a single accident, Harwell pointed out.

"Strict airline standards are maintained," stressed Harwell. "All of the pilots flying the runs have had thousands of hours of experience in air transportation. Several are 'million-milers' and most of the others are nearing the million-mile mark. They all receive flight checks twice a year from A. P. Wilson and W. D. Carrier, Convair check pilots.

"With high pilot proficiency and constant plane maintenance, we are able to provide the best possible transportation connections," he added.

Most of the SD pilots put in from 60 to 80 hours flight time apiece each month in the C-47s. They are on call at all times, 24 hours a day seven days a week, to be ready to make an emergency hop at any time of the day or night.

Reservations for San Diego passengers to test sites are handled through the SD test base office while Astronautics transportation takes care of Astro cargo and passengers.

Only other craft operated out of Convair SD is its own Aerocommander, seven-place plane, used as an executive craft, usually to spots inaccessible by regular commercial air travel.

F-106 Armament Testing Nears

Fifty Convair SD people are assigned to McGuire AFB, N. J., during the F-106 test program known as Category Three, put into motion by the Air Force in mid-summer.

Engineers, service representatives, mechanics, and technicians from Convair San Diego plant and Palmdale facility are assisting in updating planes to latest configuration before the upcoming armament testing. Phase Three firing is expected to begin at Tyndall AFB, Fla., over the Gulf of Mexico range some time within the next few weeks.

Final phase of functional checkout and preparation of F-106As for flight test is being handled by a Palmdale crew under Ed Fish (Dept. 321-1), field operations foreman, who has been on special assignment at McGuire since the first part of November.

James Carton of Convair SD engineering is coordinating this program.

F-102 UNIT SCORES SAFE FLYING MARK

The 48th Fighter-Interceptor Squadron, equipped with F-102s, completed its 26th month of accident-free flying at the end of November. The 48th FIS, Air Defense Command unit based at Langley AFB, Hampton, Va., is commanded by Lt. Col. Laurence P. McIntosh.

The squadron's F-102s have been in the air more than 13,000 hours since Sept., 1957. It was the first ADC unit to complete transition to F-102s and was the first to undergo a weapons evaluation utilizing the SAGE concept of air defense. It acquired Convair-built F-102s in April, 1957.

The 48th FIS also holds all-time records for flying times in ADC aircraft, more than 800 hours a month in F-102s.

W. A. Smutz represents Convair SD at Langley AFB as field service representative.

Escape Capsule Shipped For Icy Water Testing

Cold-water testing of the B-58 survival capsule in the icy waters of Lake Erie will be held by Convair Fort Worth and Air Force aero medical experts early this month.

Gene Bledsoe of engineering furnishings group has planned details of the tests in association with the Air Force's aero medical section of the air crew effectiveness branch at Dayton. Actual testing will be supervised by the Air Force.



GET READY—Maj. V. R. Robinson of Carswell Test Force is in get-ready position to simulate B-58 survivor capsule ejection.

An Air Force volunteer will be the "guinea pig" to simulate a B-58 crew member who has ejected from the B-58 via capsule and over cold water.

"We want to see—among other things—what problems might develop from ice," said Bledsoe.

"We also want to see if the crewman has any problem keeping warm."

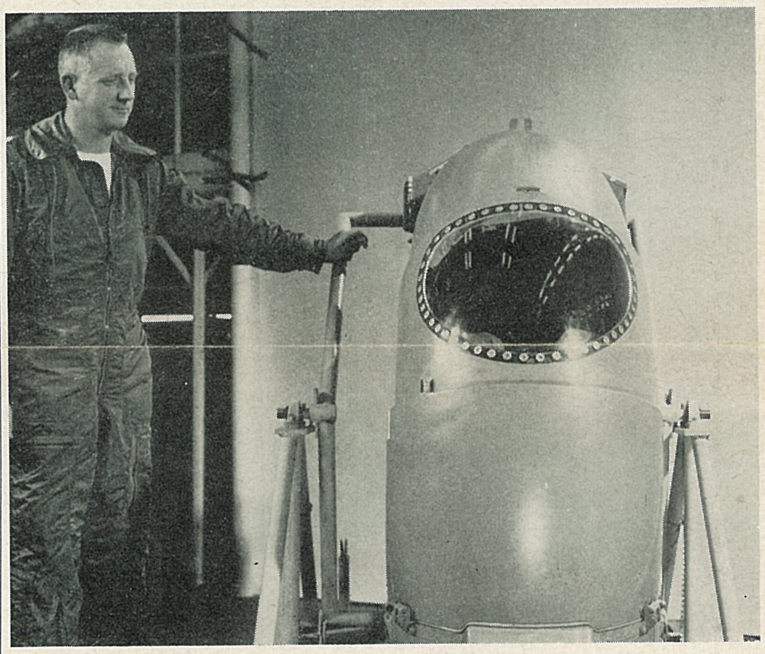
The crewman has been trained for this mission in warmer waters off Key West, Fla., where first flotation tests were made earlier. In that test, an Air Force sergeant remained afloat in and around the capsule for three days and nights. (**Convairiety**, Sept. 30, 1959.)

"Our tests on Lake Erie will be entirely different," said Bledsoe. "At Key West we had the problem of heat plus warm water (68 degrees). On the lake we undoubtedly will find it freezing cold."

Tests are being run for Convair and Stanley Aviation Co., which is building escape capsules at Denver.

Upon completion of the cold water tests, the test program at Hurricane Mesa, Utah, and future tests at Convair FW, escape capsules will start going into B-58s.

Representing Convair FW at the test site will be Bledsoe, Dr. Zane Gaut of the medical section, and photographers.



ENCAPSULATED—With "front door" closed, man inside capsule is well protected from wind blast.

Photos of Hydraulic Fluid Used As Guide to Standard Quality

Astronautics now employs photography to control contamination in vital hydraulic missile parts.

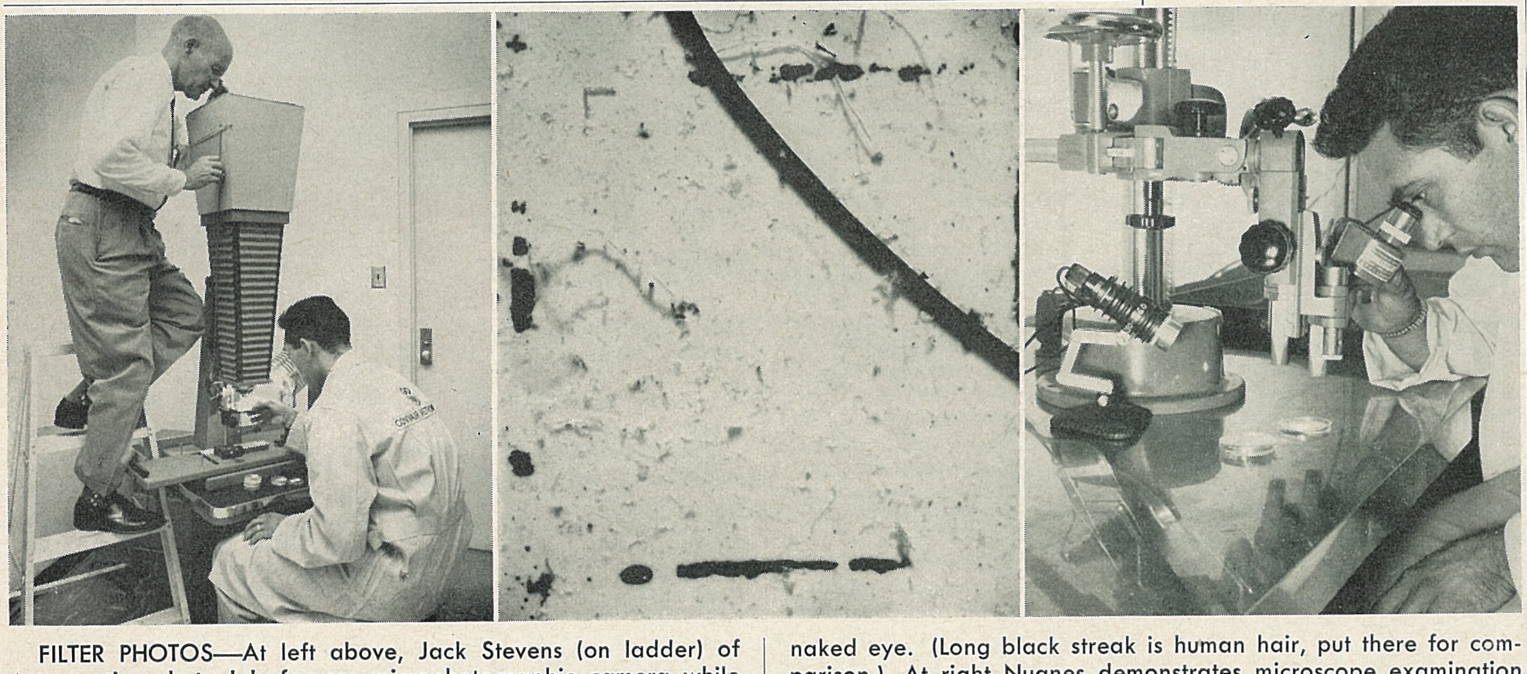
Microscopic in size, contamination particles can cause a vital part or system to perform erratically or fail outright. Hydraulic parts, with their flow of fluids, are common carriers. Contamination is so small it must be magnified many times for detection.

During early stages of Atlas missile production, each incoming hydraulic part was inspected. Fluids were drained, then passed through special filters. Examination of these filters under magnification sometimes revealed excessive amounts of contamination. It was a slow process, often requiring hours for each part according to S. S. Smith, Astro inspection general supervisor.

Photographic techniques entered the picture in the form of a special microphotographic camera adapted by Astro technicians for the job.

Tiny sections of the filters were magnified (some as much as 67 times) and photographed. In time, the technique produced a series of photo prints and a standard was established for the degree of freedom from contamination required. The prints were widely distributed to vendors making hydraulic parts, to Convair inspectors in vendor plants and to Astro's own receiving inspection. With them for comparison, an inspector can examine a filter under a microscope and visually determine almost at once if the fluid is sufficiently free of contamination.

The photo system has so reduced contamination that examination of each part no longer is necessary.



FILTER PHOTOS—At left above, Jack Stevens (on ladder) of Astronautics photo lab focuses microphotographic camera while Jose Nuanes, inspector, holds tiny filter in place. Center photo is result, showing contamination in hydraulic fluid undetectable to naked eye. (Long black streak is human hair, put there for comparison.) At right Nuanes demonstrates microscope examination of hydraulic filter. He can compare what he sees with photo of permissible contamination, tell immediately if sample passes test.

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SAN DIEGO, POMONA, ANTELOPE VALLEY, VANDENBERG AFB, CALIF. AFMTC, CAPE CANAVERAL, FLA., FORT WORTH, TEX.

Twenty Qualify at SD For President's Award By Saving $1½ Million

Twenty flat-salaried men at Convair SD have put almost $1½ million into the company's "savings account" during 1959.

Each of the 20 is eligible for the 1959 President's Award, top honor paid annually for cost reduction activities. Together, they have saved Convair $1,412,741, the second largest total ever chalked up by eligible President's Award candidates. In 1956, an all-time high of $1,993,303 in savings was posted.

The President's Award, which has been presented at Convair SD each year since 1954 by Convair's president, is usually given at a meeting of the Management Club. To be eligible, each candidate must post savings of $25,000 or more.

Winner receives an individual bronze plaque, and has his name engraved on a similar perpetual plaque in the operating division manager's office; a certificate facsimile, and a $250 merchandise gift of his choice.

The only addition to the original list of 19 qualifiers (**Convairiety**, Nov. 11, 1959) is M. C. Brady (Dept. 6) who has accounted for $55,188. The final list of candidates shows also that C. W. Clark (Dept. 140) more than doubled his savings total during the last month. It now stands at $140,104, as compared to $77,780 in November.

Seven of the 20 candidates have saved more than $100,000 each. They are C. E. Boyd (Dept. 197), $103,417; Clark; J. W. Cox (Dept. 170), $194,580; G. S. Hopps (Dept. 4), $128,484; G. E. Trimlett (Dept. 6), $129,456; B. J. Wood (Dept. 93), and R. W. Shaffer (Dept. 15), $137,948 (a joint CIP, according to President's Award rules each gets credit for full amount). During 1959, 3,052 CIPs were submitted, of that number 563 were approved and installed. Total Convair savings, through the CIP program, was $2,786,781.

E. E. Hartzler, cost reduction supervisor, pointed out that of the 563 CIPs installed, the 20 President's Award candidates turned in 82, yet accounted for nearly $1½ million, better than half of the entire CIP savings total.

D. W. Kennedy (Dept. 116) qualified for the award's list by posting a savings total of $37,572. He submitted the most proposals (18) of any candidate, and had the greatest number installed (9). His perseverance more than paid off because it won for him $3,000 in "RX" awards, which included the Grand Prize.

Next in line was N. R. Keough (Dept. 31) who turned in 10 CIPs, and had five installed for a total savings of $44,083.

$85,856 Paid In ES Awards, All-Time High

Employee Suggestion awards paid at Convair San Diego skipped to an all-time high of $85,856.70 during 1959, E. E. Hartzler, cost reduction supervisor, revealed this week.

The new total beats a record that has stood since 1956 when hourly folk at SD pocketed $83,715.53.

During the past year, the cost reduction section received a total of 8,896 ESs, approved 1,757, for an acceptance percentage of 18. The average ES earned $46.71 for its submitter.

The total number of Convair dollars saved through the ES program is $763,301, the second best savings total on record, surpassed only in 1956 when ESs accounted for savings of $1,377,740.

Combined Convair SD savings during 1959, through both the ES and Cost Improvement Proposal programs, stood at $3,550,528, Hartzler said.

Flat-salaried men turned in 3,052 CIPs, of which 563 were installed. The percentage accepted was 17.6. Total amount saved through the CIP program was $2,786,781. The average CIP installed saved Convair $6,436.

During the "RX" campaign, which lasted four months, 4,499 hourly and flat-salaried employees turned in 5,328 proposals. Of these, 636 were installed. They saved Convair $1,275,215.

An additional ES record was established during 1959 at Convair SD. A joint ES submitted by E. J. Rasp and J. B. Stevens (both Dept. 280) won the largest award ever paid at any Convair operating division. It earned $5,639.10 for its submitters, and saved Convair, during the first year of installation, $56,391.



FAA INSPECTORS—Pictured after flight in No. 4 Convair 880, now in testing toward FAA certification, are Federal Aviation Agency representatives, from left: C. H. Jacobson, pilot; W. B. Spelman, airframe and equipment specialist; M. Brega, FAA inspector based at Convair SD; and J. K. Bussey, supervising project engineer. Jacobson, Spelman, and Bussey are assigned to aircraft engineering division of Los Angeles regional office.

Applications Deadline Feb. 26 For Scholars

Applications now are being accepted at both Convair San Diego and Astronautics for the annual sons' scholarship program.

Two San Diego sons and one Astronautics son will receive their undergraduate education in engineering or an allied science through Convair scholarships.

To be eligible, parents or stepparents must have been Convair employees for five years or more. Students must be graduating from high school this year, or have been graduated within the last two years.

The three winners will receive tuition to an accredited college or university offering degrees in engineering or an allied science. In addition, laboratory fees will be paid and an additional $250 a year for expenses. The scholarships are for a maximum of five years of study.

Applications and information are available at both SD and Astro educational services offices: SD Plant 1, engineering educational services office, Bldg. 51, third floor, Room 378; educational services, Bldg. 15, second floor; SD Plant 2 educational services, Bldg. 2, mezz; Astro educational services, Bldg. 26, first floor, Col. E-5.

San Diego applicants may call J. H. Grisham at ext. 1827, Plant 1, for information; while at Astronautics site, E. W. Thurston, ext. 1473, is in charge of the program.

Applications with transcripts of grades must be turned in at both plants by Feb. 26.

Applicants will be notified the middle of March of their eligibility and time and place of personal interviews. Winners will be announced the first part of April.

Aircraft Requirement Cut by Missile Boom

(Shortened slightly to meet space requirements, following is a year-end statement from Gen. Orval R. Cook, USAF (Ret.), president of Aerospace Industries Association, in which he gives his views on the future of aerospace companies.)

The year 1959 was marked by significant changes in the aerospace industry, its structure, composition and field of activity as the result of the continuing progress made in air and space science and technology. Although these changes have been under way for several years, they exerted an especially acute impact on the industry's activities during the past year.

Two national policy determinations have been the major factors causing these changes. First is the increasingly prominent role played by high performance guided missiles in our defense weapons inventories with a concurrent reduction in aircraft requirements. Secondly has been the determination to provide for these new weapons, and at the same time maintain an existing offensive-defensive military organization under a relatively fixed budgetary ceiling.

The impact of technological advance has resulted in reduced weapons inventories and has brought a shift from volume production to precision fabrication of very limited quantities.

One result of this is that more and more companies are competing for fewer and fewer contracts. Another result is that the need for an unprecedented degree of reliability in components has made precision fabrication more essential than ever before. This requires an extensive realignment of our

(Continued on Page 3)

Library Processes Requests on Tape

A recorder telephone answering service has been put into effect at Convair SD's engineering library to handle requests to reserve books or periodicals.

Reservations may be placed on material listed in the weekly library bulletin, or on other information known to be available. The extension is 2644, Plant 1. Callers are asked to speak distinctly and follow instructions given by recording.

They will be notified by telephone when the information is available.

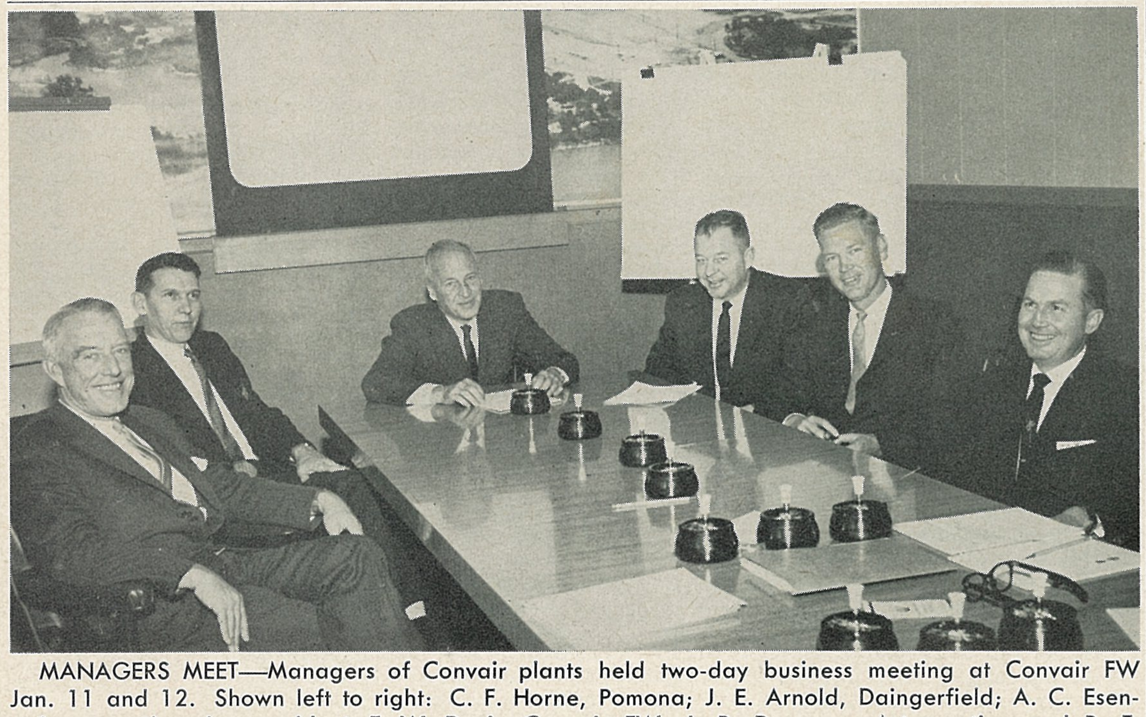
Regular reference service continues to be handled through the library's 1835 extension.

Son, Daughter Will Get $1,000

The 13th annual Convair SD Management Club scholarship program will open for sons and daughters of San Diego employees next week.

H. E. Mayer, chairman of the club's scholarship committee, said that application blanks can be obtained from him or at high schools in the San Diego area after next Monday (Jan. 25). A card or call to Mayer, ext. 2481,

(Continued on Page 2)



MANAGERS MEET—Managers of Convair plants held two-day business meeting at Convair FW Jan. 11 and 12. Shown left to right: C. F. Horne, Pomona; J. E. Arnold, Daingerfield; A. C. Esenwein, executive vice president; F. W. Davis, Convair FW; J. R. Dempsey, Astronautics; and B. F. Coggan, Convair SD.

Dates for Registration Set by Cal-Western

Spring semester of the California Western University program of management development courses offered Convair San Diego and Astronautics people will start the first of next month.

Registration at the Downtown Division, 1729 Fifth Ave., will be Feb. 3, 4, and 5 from 5 to 8:30 p.m. Those who wish to register for mathematics, chemistry, or audio-visual classes must sign up at the Point Loma campus on Feb. 8 and 9 from 5 to 8:30 p.m. Classes begin Monday, Feb. 8, at both campuses.

Through Convair arrangements, tuition will be paid for 155 San Diego and 95 Astronautics supervisors and non-represented flat-salaried people. Approved courses are in the fields of industrial management, business administration, finance, accounting, and personnel relations. Last semester 232 SD and Astro people attended evening classes.

Some liberal arts classes may be approved depending upon the individual's Convair classification or applicability of courses toward a degree or certificate program.

Eligible night-shift participants may enter day classes at the Point Loma campus if working arrangements make attendance possible throughout the entire semester.

To register under the Convair-Cal. Western program, SD and Astro applicants must obtain forms from their departmental manager or superintendent, or from the educational coordinator of each operating division.

D. G. Walton, ext. 1671, SD Plant 1, is in charge of San Diego registration. R. E. Graves, ext. 1936, Astro site, is coordinator for Astronautics registration.

New students must have signed approval of their manager or superintendent before registration.

Non-management personnel are not eligible for the Convair-California Western program, but may register for a similar schedule of classes under provisions of the regular Convair tuition refund policy.

323rd FIS at Harmon Given High Rating By Evaluation Team

Four F-102As can be put into the air on five minutes' notice at any time, day or night, from Ernest Harmon Air Force Base in Newfoundland.

Preparedness plays a big part in the job of the 323rd Fighter-Interceptor Squadron, flying Convair-built jet interceptors, reports R. J. Helm, Convair SD field service representative at the northern base.

Besides the four fully-loaded F-102s kept constantly on the alert, the squadron keeps from 16 to 18 other jets ready to go on less than an hour's notice.

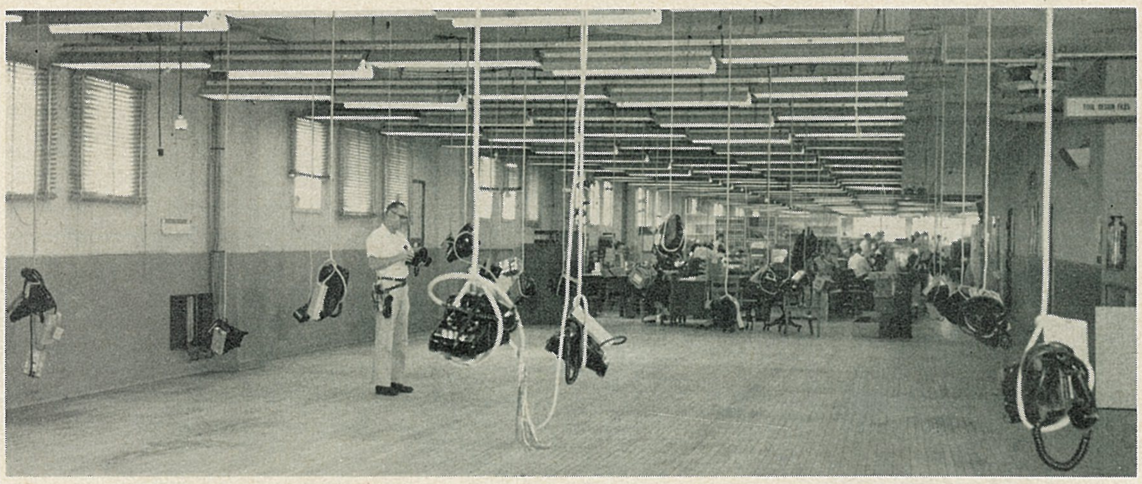
The whole squadron was rated outstanding by the 64th AD evaluation team last month and the 323rd's maintenance was called above average by both ADC and the 64th AD. The 323rd FIS is commanded by Lt. Col. A. J. Coleman.

Periodicals' Return To Library Sought

A call is out for all periodicals to be returned to the Convair San Diego library on the second floor of Bldg. 5.

Under a new policy, put into effect the first of the year, periodicals will no longer be loaned out of the library, said Keith Blair, chief librarian. Because of the demand, all periodicals will be kept in the library to be used as reference material.

However, if there is more than one copy of any publication in the library, the second copy will be available for short-term loans, After 4 p.m. any periodical may be checked out overnight.



FILLED NOW—On Jan. 7 north end of Bldg. 4, Plant 2, had only sprinkling of occupants. Since that time Astro people from Mallen Bldg. have filled all available spaces, utilizing telephones shown suspended here. Over 700 are slated to move in by mid-February.

Pilot to Speak On X-15 Tests

Al White of North American Aviation, Inc., will be principal speaker at the Feb. 2 San Diego chapter meeting, Institute of Aeronautical Sciences, in the Terrace Room of the Lafayette Hotel, 2223 El Cajon Blvd.

A 6:30 p.m. social hour and a 7:30 p.m. dinner will precede the address. White will discuss "The X-15 Project—The Design, Test Objectives and Growth Potential." The speaker is the alternate test pilot on the X-15 project and chief pilot of the B-70 project.

White will discuss some of the design problems of the X-15, along with methods of controlling the aircraft inside and outside the atmosphere. Human factors, test programs and results, as well as potential research applications, will also be reviewed.

Sales Time Reduced At SD Salvage Yard

Saturday sales hours at the Convair San Diego salvage yard have been shortened an hour. The yard is now open for employee sales from 7:30 a.m. until 11 a.m. every Saturday morning.

The change has been made to reduce operating expense, explained R. H. Lange, SD material sales supervisor.

The yard, located at Gate 5, Plant 1, is open to Astro employees as well as Convair SD people. San Diego employees also are eligible to make purchases at the Astronautics salvage yard at the northwest corner of the Kearny Mesa site. Saturday hours at Astro are from 8 a.m. to noon.

Son, Daughter Will Get $1,000

(Continued from Page 1)

Plant 1, mail zone 6-170, is all that is necessary to get the required forms.

The Management Club will award two scholarships of $1,000 each for a boy and a girl, plus $100 savings bonds for each of the two boys and two girls chosen as runners-up.

All Convair SD sons and daughters are eligible if they are finishing the 12th grade of school either in January or June of this year, explained Mayer.

Applications, together with transcripts of grades, must be returned to the committee by Feb. 26.

Three elimination rounds will bring the field down to the six winners in mid-April. The scholarship awards will be presented at the club's May meeting.

Assisting Mayer in this year's program are C. T. Boyle, M. L. Sweeney, M. C. Curtis, Frances Collier, L. E. Woll, Jerry Cox, and C. O. Ekrem.

JAYCEE WILL OFFER FLIGHT ENGINEER, MECHANICS CLASSES

Four classes of interest to Convair SD field operations mechanics and flight engineers will be offered during the spring semester at San Diego Junior College.

Registration is open now for classes in "Flight Engineering," "Jet Aircraft Systems," "Airframe Mechanics," and "Aircraft Powerplant Mechanics." Classes, all accredited, will start the first week in February and will be held twice a week in the evenings.

Material presented in the courses is important for Convair people interested in working toward FAA licenses in airframe and powerplant or flight engineering, said L. W. Turner of SD educational services, Convair coordinator.

Two of the classes will be taught by Convair SD men. D. R. Maxion of customer service will be instructor of the "Jet Aircraft Systems" course and L. A. Scrivener of engineering, the course in "Flight Engineering."

Details will be posted on bulletin boards and further information may be obtained by calling Turner, ext. 491, Plant 1, or the SD Junior College, BE-4-8453.

Digges to Head SD Contracts

D. H. Digges last week was named manager of contracts for the San Diego operating division, with C. G. Glasgow as chief of contract administration - military and F. S. Chambers as chief of contract administration - commercial.



D. H. Digges

The announcement was made by T. J. Sullivan, assistant manager — contracts, customer service, material.

Digges has been with Convair since 1951. A native of Virginia, he was graduated from National University in Washington, D.C. with an LLB and served in the Navy during World War II. He was with the RFC in Washington for a number of years as assistant to the general counsel.



C. G. Glasgow



F. S. Chambers

Glasgow, a graduate of West Point, class of 1943, with graduate work at Stanford and Ohio State, served in the Air Force until he joined Convair in 1954. Chambers joined Convair in 1951 from Pan American World Airways where he had been a traffic representative. He attended University of Hawaii and for a time served RFC on Guam.

Dependent Fees Held Deductible

Convair San Diego and General Office people who plan to itemize their medical deductions on their 1959 tax returns may deduct dependent insurance for the period it was paid.

A deduction of $2.52 per week may be taken for the period Jan. 1 through Sept. 30; and $2.77 from Oct. 1 through Dec. 31.

The deduction for employees who are members of a bargaining unit which did not accept major medical expense benefits for dependents is $2.25 per week from Jan. 1 through Sept. 30, and $2.48 per week from Oct. 1 through Dec. 31.

Deductions may be taken only by employees who carried dependent insurance.

In addition to the dependent insurance deductions, employees also may deduct 15.5 per cent of the disability insurance premium. This was the amount actually applied toward hospitalization insurance.

For example, any person who earned $3,600 or more during the year paid $36 disability insurance. He may deduct 15.5 per cent, or $5.58, as medical expense. Anyone earning $2,000 during the year paid $20 disability insurance and could deduct $3.10.

Mfg. Control Wins Safety, Housekeeping

Manufacturing control ended the year as winner of the Convair San Diego safety and housekeeping contest for 1959, garnering 16 points out of a possible 24.

During the year the 875 manufacturing control people at Plant 1 and Plant 2 under T. F. McAleer had won the monthly safety high standing ten times and were high-point winners of the housekeeping contests six times.

One point is given each month to winners of safety and housekeeping contests, making a possible perfect score of 24 points for the entire year.

Manufacturing control placed second in last year's contest when it was barely nosed out by experimental.

Runner-up in the 1959 race was material department under W. R. Bruce with a total of 13 points, eight for safety and five for housekeeping.

Close behind was 880 field operations under S. J. Barinka with 12 points, eight for safety and four for housekeeping.

Departments are judged each month on the number of doctor cases per number of manhours worked for standings in the safety contests. Monthly housekeeping contests judge departments on cleanliness and orderliness, material handling, fire, and safety inspection to determine the percentage of violations per employee.

Manufacturing control had a low of .005 average violation per employee for the entire year. Model 8 primary, final, field operations under F. H. McLaughlin was second lowest in housekeeping standings with an average of .00615, and C. F. Blair's fabrication department at Plant 2 was third with .00623.

Alaskan Bear Visits Interceptor Office At SD, in Rug Form

An Alaskan black bear, shot last spring by Hal Wilson of Convair SD interceptor service while on duty at Elmendorf AFB, turned up in San Diego last week as a thick-napped rug.

Wilson and two other men spotted the animal from their canoe while on a bear-hunting voyage down the Little Susitina River, about 80 miles north of Anchorage. After beaching the 20-ft. craft and silently spreading out to locate the bear, they saw him peering at them from over a log.

Wilson, who had won the toss for first shot, downed him with a 308-cal. rifle at about 60 yards.

The head and skin, made into a rug by a Seattle firm, attracted plenty of interest in the SD interceptor service offices upon its arrival here—even occupying the place of honor, the boss's chair.

Cost Reduction Honor Roll

Installed during the last two weeks:



C. W. Clark's (Dept. 140) CIP will save $62,324 a year.



L. B. Gilmore's (Dept. 400) ES will save $8,457 a year.



MODEL SISTERS—Pretty Pat (left) and Linda Waldo (daughters of Irvin Waldo, Dept. 401) will model for Convair SD Camera Club members at a shoot Sunday (Jan. 31) at the La Jolla Wind and Sea Beach. Photos taken by CRA Camera Club members.

★ Convairiety ★

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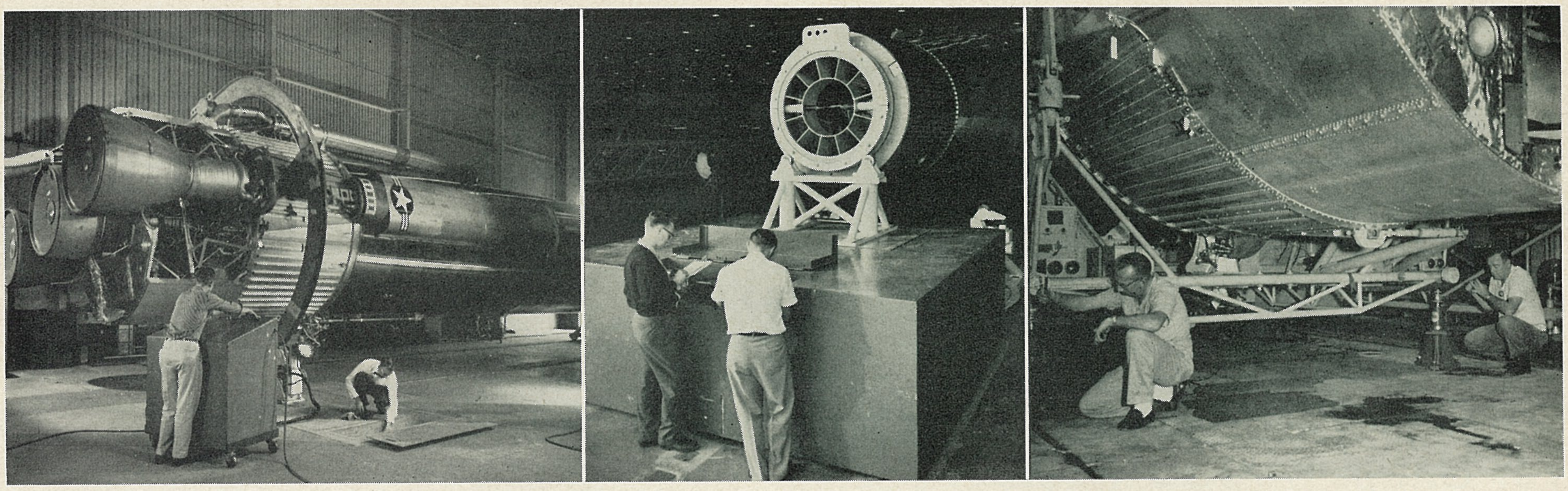
SD Editorial Offices, Building 32, Plant 1, ext. 1071. Staff: Grayce Fath, Helen Pemberton, Fred Bettinger.

Astronautics Editorial Offices, Bldg. 8, Astro site, ext. 3322. Staff: Bryan Weickersheimmer, news editor; Alyce Martin. News contacts: AFMTC, Bobbie Waddell, ext. 3038: Warren AFB. Bill Jack. ext. 7-2254.

FW Editorial Offices, Col. 73C, ext. 2961. Mailing address: Convairiety, Convair, Fort Worth, Texas. Telephone PErshing 8-7311. Staff: Dave Lewis, news editor; Susan Bagby, Mary Beck.

Pomona Editorial Offices, Room K-222, Bldg. 2, ext. 6226, mail zone 3-8. Staff: James Combs Jr., news editor; Dorothy Keller.

Antelope Valley Editorial Office, Room 103, Bldg. 301 B, Palmdale, ext. 337. Staff: Richard L. Millett.



WEIGHT WATCHING—No debutante keeps a more careful eye on scales than does Air Force's Atlas missile. Photos left and center (in Bldg. 5) show missile on scales prior to leaving factory. In scene at left T. A. Briley of tooling is at controls of hydraulic unit that rotates missile to determine weight distribution characteristics, while E. E. Marquardt of weights group checks scales, embedded in concrete. In center T. F. Reed and Murray Franke of weights group, take nose readings. Scene at right is at AFMTC where missile is weighed again, this time with special electronic jacks that transmit readings to central panel.

B-58 in South Dakota Undergoes Rigorous 'Cold-Soak' Treatment

First in a series of combination "cold-soak" and quick-reaction demonstrations has been successfully completed by B-58 No. 31 at Ellsworth AFB, Rapid City, S. D.

Conducted by the B-58 Test Force at Carswell, the demonstrations are being staged to prove the Hustler's ability to respond quickly to combat-like alerts under cold-weather conditions.

"The test will consist of three flights out of Ellsworth," according to Lt. Col. Floyd Finberg, chief flight test engineer for the Test Force. "In each case we'll be checking to see how long it takes for a Hustler combat crew to get in the air once the alert is sounded."

Hustler No. 31 flew a four-and-a-half hour combat-type sortie before touching down initially at Ellsworth.

No. 31 was then allowed to remain outside overnight — the cold-soak treatment—in order to evaluate modifications made on production Hustlers following Operation Raw Deal and climatic tests. Raw Deal was conducted in Alaska in 1958 in temperatures ranging from 60 to 68 degrees below zero.

Following the first cold-soak treatment, the Hustler was sent scrambling on another combat-type mission.

Crew for the first flight was Maj. K. K. Lewis, Maj. James P. Zwayer, and Capt. Raymond P. Wagener.

Lt. Col. Ralph J. Rose of Carswell is heading up a B-58 maintenance crew from Carswell that will be stationed at Ellsworth for duration of the tests.

Representing Convair and assisting the Air Force in the operation are John M. Bailey, production support engineer; A. R. Long, aircraft maintenance specialist; Charles N. White, assistant general foreman Dept. 63; and R. O. Ragsdale, Carswell spares representative.

Unique Weighing System Developed To Keep Close Eye on Atlas Missile

Grams are counted as closely as tons in keeping tab on the weight of Atlas missiles, a task so exacting it puts weight-watching fashion models to shame.

Utilizing one of the most elaborate weighing systems ever assembled, Astronautics technicians check the average Atlas missile for weight between six and eight times from fabrication to launch.

Smaller scales measure down to a gram (454 grams per pound). At the other extreme are units with a capacity of a third of a million pounds.

Exacting records are made of each component or part of an Atlas down to the smallest measureable weight. As weighing operations progress, minute checks are made of all missing items for which weights will be added.

"We use a rule of thumb of a 'pound per mile,'" commented J. F. Conlin of the engineering weights group. "That is, save a pound in production, add a mile of range. Applied to upper stages, the performance capabilities spiral upward with similar weight reductions."

Last stop for the Atlas prior to shipment is weighing.

This takes place on a unique three-unit system in Bldg. 5. Two scales are anchored in pits, while a third is mounted on a mobile track. Each has a 30,000-pound capacity and is rated 1/20th of one per cent accurate. Overhead cranes lift the missile into the system. Electric motors rotate the missile 30 degrees to the right and left.

Rotation helps to locate the exact center of gravity in the missile. This "CG" must fall within specified limits at all times to insure stability at launch and in flight.

Astronautics also maintains special weighing units at its Air Force Missile Test Center in Florida. One system consists of three jacks with special heads which lift the missile on its handling trailer. As it is lifted, electronic impulses transmit weight data to a special control panel.

Load cells installed at the base of AFMTC Atlas launchers also play an important role. These cells are connected with blockhouse consoles to show total missile weights at all times. Readings change as fuel is pumped into the missile and largely through this means test conductors are aware when full fuel loads are aboard.

To establish and maintain accuracy in the cells necessitates the use of a unique mobile field standard and force weight system. This is the only system of its type known. Certified to be 0.035 per cent accurate, the system can be calibrated only at the Bureau of Standards Laboratory in Washington, D.C.

FW Men Will Attend Conference in NYC

Three Convair Fort Worth men will represent Convair FW and the Texas Section of the Institute of the Aeronautical Sciences at the Institute's conference in New York City, Jan. 25-27.

R. J. Patton, Dept. 6-1; Andrew Kalitinsky, nuclear program manager; and M. F. Towsley, Dept. 6-6, will attend.

Aircraft Requirements Reduced as Customers Turn to Missiles

(Continued from Page 1) **labor force with a decline in the number of production workers and an increased requirement for engineering and technical skills. It necessitates high-cost machines which quickly could become useless as the result of an advance in our technology.**

It is pertinent to observe that the cost to develop one of our modern weapon systems could easily exceed the cost of producing the limited number of weapons that defense would require. Thus, during this period, we are primarily devoted to research and development, rather than production effort. To meet and solve these problems, aircraft and missile manufacturers have made and are continuing to make radical changes in their organizations in order to cover the broad scope of aircraft, missiles, spacecraft, their propulsion systems, guidance and related equipments.

The impact of technological progress on the industry has been magnified by the cancellations, cutbacks, and stretchouts of both development and production programs resulting from Government efforts to operate within a fixed budgetary ceiling. Especially affected by these actions has been management's ability to reorganize and reprogram its efforts and activities on an orderly, sound and economic basis.

ACCOMPLISHMENTS

Ever-increasing deliveries of gas turbine-powered transports—and their enthusiastic endorsement by the traveling public — was perhaps the highlight of 1959. By year's end, approximately 245 of these planes had been delivered to foreign and domestic airlines . . .

In the field of guided missiles, major emphasis was concentrated on the all-important area of reliability. As a result, six new missiles progressed from test to operational status, perhaps the most noteworthy being our first intercontinental ballistic missile. At the same time, there was a marked increase in deliveries of all classes of missiles, ranging from the large ICBMs to the relatively small air-to-air missiles, with a consequent increase in the effectiveness of our armed forces.

Although the most significant progress in space exploration was made by the Russians, industry activity in the field was sharply accelerated. One early space probe established the feasibility of the use of satellites for weather reconnaissance; later launchings uncovered the fact that the radiation belt surrounding the Earth consists of many layers instead of the two bands previously discovered, and also sent back valuable data on how radiation from the sun is absorbed, reflected, and re-radiated back to space from Earth.

The advent of manned space flight was brought nearer by the successful recovery of a monkey and a squirrel that survived a flight of 1500 miles in the nose cone of a missile which reached a height of some 300 miles. Also of note were the first powered flights of the X-15 special research plane which is designed to take man to altitudes of 100 miles and reach speeds of 4,000 miles per hour.

As the year drew to a close, three new world records were established by American military aircraft: a new altitude record of 103,995 feet; a new speed record of 1,525.95 miles per hour; and a closed course record (100 kilometers) of 1,216 miles per hour. In addition, a U. S. helicopter set a world's altitude record of 29,846 feet, and a light plane distance record of 7,668 miles, from Casablanca to Los Angeles, was set . . .

SALES, PRODUCTION

Sales of the aerospace industry for 1959 are estimated at about $11 billion, approximately the same as in 1958.

Despite the relatively high level of sales, production of military aircraft declined from 3,700 units in 1958, to about 2,400 units in 1959. However, rising expenditures for missiles and space vehicles partially offset this marked decline. Expenditures for the procurement and production of missiles have risen to an estimated $3.49 billion for fiscal year 1959.

Commercial aircraft, engines, propellers and parts sales are estimated at about $1.7 billion in 1959, compared to $1.4 billion in 1958.

Total commercial aircraft production, including helicopters, for 1959 is estimated at 8,100 units, significantly higher than the 1958 output of 6,860 units. The value of the 1959 civil aircraft production is estimated to be up 66% from 1958. About 260 transports were delivered in 1959, compared to 216 units in 1958. More than 245 of these planes were turbine-powered transports. At the end of October, U. S. manufacturers had orders for more than 432 turbine transports, valued at about $2 billion.

SALES, EARNINGS

Sales of the 12 major airframe manufacturers, paralleling those of industry as a whole, are estimated to show little change from the $7.3 billion reported in 1958. Earnings, however, continued to decrease. The average net profit, as a percentage of sales of the 12 companies, has decreased steadily since 1954—from 3.7 per cent to 2 per cent in 1958 . . .

The decrease in profit of the aerospace companies, although sales have remained constant, is due to many factors, principally contract cancellations and stretchouts, economic limitations, and proportionately more research and development contracts than production contracts.

BACKLOG

The backlog of the aerospace companies is steadily declining. It has declined $1.1 billion since the first of the year. As of Sept. 30, 1959, the companies had orders on their books for $12.1 billion, compared to $13.2 billion on Dec. 31, 1958. The backlog has declined more than $6 billion since Sept. 30, 1956.

Reduction in military aircraft backlog accounts for about three quarters of a billion of the 1959 decrease, and approximately $4.75 billion of the $6 billion decrease during the last two years.

The commercial backlog declined slightly during the past year as deliveries of the turbine-powered airline transports increased. The backlog of piston-powered transports has virtually disappeared.

EMPLOYMENT

The declining employment in the aerospace industry continued in 1959. September employment was the lowest since 1955. By Sept., 1959, employment had declined by 162,000 workers — a drop of 18 per cent from the peak post World War II employment level of April, 1957.

Employment at the end of Sept., 1959, was 730,000 and is expected to remain at about this level into the first months of 1960.

Although the work force of the aerospace industry has decreased, the trend has been toward more highly skilled personnel, which is reflected in their earnings.

Average hourly wages of industry employees continued to increase during 1959, climbing from a 1958 annual average of $2.51 to $2.65 in Sept., 1959. Corresponding average weekly wages have increased from the 1958 annual average of $101.91 to $106.80 in Sept., 1959—an increase of about five per cent.

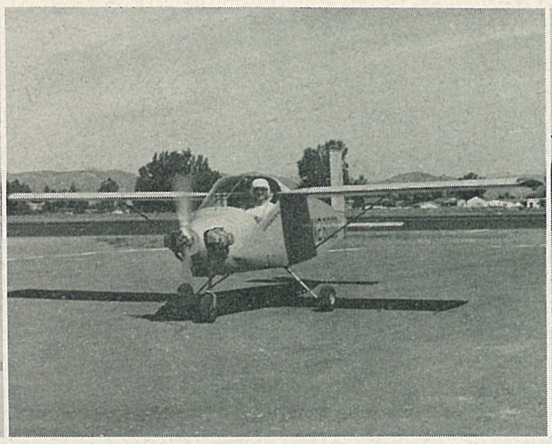
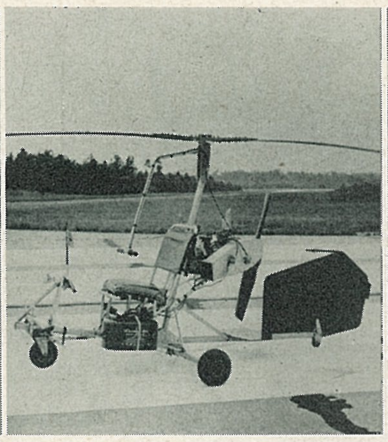
1960 FORECAST

An exact forecast of the 1960 level of activity in the aerospace industry is not possible because it is geared to the expenditure policies of the Defense Department. Military products continue to represent more than 80 per cent of the sales of the aerospace companies. Barring a national emergency, expenditures for aircraft and missiles combined are estimated to be about the same as in 1959, with missile spending increasing and aircraft spending decreasing. Production of military aircraft will continue to decline. The intercontinental ballistic missile programs and space programs will be accelerated.

It is anticipated that sales for 1960 will continue to be high, running well over $10 billion . . .

Research and development expenditures will increase and a large percentage of the aerospace industry contracts will be for research and development. Lengthy production runs have ceased. The increasing trend toward research and development contracts will continue to adversely affect the rate of earnings of the aerospace industry.

The industry will continue to re-invest a large percentage of its earnings in facilities. In the ten years following the end of World War II, the aerospace industry invested $1 billion of its earnings in research and development programs and facilities for aircraft and missiles, and by 1961 at the present rate will have invested in excess of another $1 billion.


HOMEMADE—All these aircraft were built by owners, members of Experimental Aircraft Association chapter in San Diego. From left: Frank Hernandez of SD Dept. 188-5 and his Rapier-65; Bjorn Andreasson and his 150 mph "BA-7"; Leonard Harris, SD production plastics, built this gyrocopter from $8.50 plans; Joanne Trefethern and "Playboy" she built herself with counsel from Convair associates. Photos by Tom Henebry.

For Under $1,000, Pilots Build Their Own Planes

Fifteen Convair SD and Astro persons belong to an organization that has but one purpose—to bring together people interested in building their own flying machines.

During 1960, some 40 members of the San Diego Chapter of the Experimental Aircraft Association will finish work on about 10 planes, and at the same time continue construction of 10 others, Ralph Wilcox, vice president of the local chapter, said.

Although members freely discuss their projects and seek advice, each researches, constructs and tests his own plane. They agree that the main satisfaction derived is a "chance to express my own views."

As a general rule, a member spends less than $1,000 to build his plane, puts in between 800 and 1500 spare time hours of work. Used items are usually purchased when the opportunity presents itself. (Convair SD members rely heavily on surplus items purchased at the salvage yard.)

Nationally, the organization numbers about 7,000 members. But the San Diego chapter, from the standpoint of planes completed and being built, is by far one of the most active. Reason given for the building surge is "the availability of materials and technical advice" in the San Diego area.

A cross-section of some of the Convair SD members brings to light some of the varying interests. Projects completed range from monoplanes and helicopters to a motorless flying "air chair" that, like a windmill, is dependent upon wind to spin its blade.

The air chair, conceived and designed by Sam Urshan (Dept. 15-6), was originally intended for use as a "rescue craft to be put on board planes." But the plan to get small jets to power the unit never materialized, so it now hangs, almost forgotten, in Urshan's garage.

Urshan is now working on a conventional helicopter and expects to finish his latest venture some time this year. It will be of ultra lightweight construction, powered by a 36 hp Aeronca engine.

Another interesting project, now being remodeled, is a gyrocopter built by Leonard Harris of Convair SD's production plastics department. Harris bought plans for the gyrocopter for $8.50 and says he spent more for gas while hunting parts than for the parts themselves.

Harris' gyrocopter is powered by a modified 72 hp engine taken off an Air Force target drone. A 20-ft. blade spins at 360 rpm and whips the craft through the air at speeds up to 95 mph. A smaller blade behind the pilot's seat, powered by a small motor, scoots the plane down the runway. It takes off while going between 18 and 20 mph. The gyrocopter can turn in a 50-ft. circle, has a ceiling of 16,500 feet, gives 20 miles to a gallon of gas, can take up a load of 375 lbs., including gas and pilot.

Bjorn Andreasson, Convair SD assistant design group engineer, last year completed a sleek, all metal monoplane with a tricycle gear. As Andreasson's working experience includes a stint with light airplane manufacturing companies in Sweden and Denmark before joining Convair, he was in a good position to develop his own ideas.

Novel features include sweep forward wings (that can be folded for road transportation), an all-flying horizontal and vertical tail, and a one-piece, jet-type canopy. Estimated cost of Andreasson's plane, powered by a 75 hp Continental C engine, is $1,000.

Some of Andreasson's innovations, especially in wing design and construction, have aroused interest among light airplane manufacturers.

Other Convair SD members, also at work on their own planes, are Russell Renfro (Dept. 401-4), Barton Wallach, flight test engineer, Gene Wright (Dept. 31), Frank Hernandez (Dept. 188-5), who is also president of the San Diego chapter.

Resale value of the privately-built planes, as a rule, is barely enough to cover the cost of construction. But members agree that performance achieved is generally better than that of production models.



SPEEDY — Posing with trophy won in recent cross-country race is 40-mile-an-hour pigeon owned by B. F. Horton, Dept. 32 at Convair Fort Worth.

Pigeons Earn New Home by Winning $915

"I promised my pigeons I'd build them a new house if they won this race for me, so that's the first thing I'm doing with my prize money."

The six race-winning pigeons belong to B. F. Horton, Dept. 32 at Convair Fort Worth. They were good for $915 prize money in a recent cross-country pigeon race.

Six of seven birds Horton entered in the race placed. Three of them came in with first, second and third best times, out of more than 500 birds competing.

His first-place pigeon, winning $500, flew 310 miles from Beeville to Fort Worth in six hours and 39 minutes. That's a little more than 40 mph.

This was the first time Horton has ever entered his pigeons in any "out of area" race. In fact, he's been raising and training pigeons only two years.

His son bought the first bird, and now there are more than 60. Horton took the pigeons over when his son left for the service.

"I've always had some kind of hobby," he explains, "and something had to be done with those birds."

The $915 isn't all profit, however, for there are expenses involved in pigeon racing, such as a timing clock (cost $85) and travel costs while training the birds. Also, race entry fees were $2 a bird.

Ex-Broadcaster Is 'The Voice' in Hustler Films

"The guy who broadcast a program of Christmas carols from the bottom of a gold mine" is now broadcasting newest developments on the B-58 Hustler at Convair Fort Worth.

He's Perry King, engineering motion picture supervisor, who is "the voice" on progress reports and many other productions of the motion picture section.

The Christmas carol program? King, while an announcer for a California radio station in the early '40s, arranged for a chorus to go to the bottom of an old gold mine, and there re-echo their carols over the air. He still meets people occasionally who remember him for this novel program.

Although he played legitimate theater for several years—including some time on the road with various touring companies — his forte was radio. He spent many years coordinating a program of classical music on a California station. It was so popular and well-received that schools began giving scholastic credit to students who listened to it.

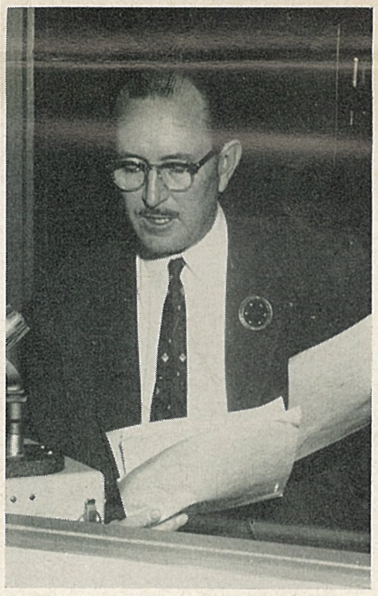
Technical movies entered the scene for King, and in 1946 he formed his own production company.

One movie he produced was the story of a pipe line built from Texas to California. "During production of the film, I think I actually walked or crawled every step of that distance," King claims.

King's entertainment work netted him another asset.

He had an extremely talented commercial writer for his symphonic music program's spot announcements. Commercials were written in a style that, when read, sounded completely off the cuff.

King liked the style. In fact, it suited him so well that the commercial writer is now his wife!



BEHIND SCENES—Perry King, FW engineering motion picture supervisor, puts radio and theatrical experience to use as he backs action in movies with running narration.



ELEPHANTS FOR LAOS—Dumbo, Walt Disney's flying elephant, will soon be flying to Laos, "The Kingdom of a Million Elephants." Mrs. J. Lewis Parnell, above, is drawing cartoon characters to decorate walls of Dr. Thomas Dooley's hospital there.

Convair Wife's Elephant Paintings Will Brighten Hospital in Laos

Laos, "The Kingdom of a Million Elephants," will soon be receiving more of the big-eared animals. They'll be sent from Mrs. J. Lewis Parnell, wife of Lewis Parnell of Dept. 20-2 at Convair Fort Worth.

And on the receiving end is Dr. Thomas A. Dooley, world-renowned for his medical work in jungle areas.

The elephants actually are colored paintings of Dumbo, the famous Walt Disney flying elephant. Mrs. Parnell is busy drawing a multitude of Disney cartoon characters for use as decorations in Dr. Dooley's children's hospital at Muong Sing, Laos.

Dr. Dooley, visiting St. Joseph's Hospital while in Fort Worth in October, saw similar paintings on the walls there—paintings Mrs. Parnell had given the hospital earlier this year.

The colorful cartoons caught his eye, and Dr. Dooley later wrote Mrs. Parnell, asking her to do some to brighten the drab walls of children's wards in the Laos hospital.

Mrs. Parnell is sending the pictures in groups of five, the first group to be sent this month. Dr. Dooley plans to use the first ones in his hospital. Other pictures will be sent to other missions in Africa, the Middle East, and South America.



"Everything seems to be going to your stomach."

Technical Writers To Hear FW Speaker

"Stretching the Publication Dollar" is the talk to be given by Johnnie Herbert, Dept. 6-5 at Convair Fort Worth, at the Jan. 19 meeting of the Dallas-Fort Worth chapter of the Society of Technical Writers and Editors.

Herbert, supervisor in engineering publications, recently spoke before a southwestern workshop sponsored by STWE in Albuquerque, N. M.

The meeting will be at the Williamsburg Room in Wyatt's Ridglea.

AF Captain at FW Now Command Pilot

Official recognition has come to two Air Force officers at Convair Fort Worth, according to Col. L. R. Hall, Air Force plant representative.

Capt. Maits Le Bon, here on training with industry program, achieved the title of command pilot, signifying 3,000 hours (that's 125 days) flying time and 15 years service with pilot rating.

Capt. E. H. Thrush, liaison officer from Warner Robbins AFB, was promoted from lieutenant Jan. 1.

J. H. Famme Honored For Planning Effort

J. H. Famme, Convair director of manufacturing development, received the "Planning for Progress" award of the Society of Automotive Engineers at a San Diego chapter meeting last week.

The award was made in recognition of Famme's efforts, as a member of the SAE national planning committee, to organize new types of engineering categories.

Presentation was made by Vern Albert, chairman of the SAE San Diego chapter, and manager of the San Diego zone for General Electric Co.

Is It News? Call Convairiety

NEWS FROM OTHER DYNAMICS DIVISIONS

General Dynamics Corporation, created in April, 1952, as successor to Electric Boat Company, is composed of seven divisions and a Canadian subsidiary, Canadair Limited, of Montreal, airframe builders. The divisions are:

Convair, head offices at San Diego, Calif., aircraft, missiles, and space systems.

Electric Boat of Groton, Conn., submarines.

Stromberg-Carlson, of Rochester, N. Y., telecommunications, electronic equipment.

Liquid Carbonic of Chicago, Ill., carbon dioxide producer, industrial and medical gases.

General Atomic of San Diego, Calif., nuclear research, development, production.

Electro Dynamic of Bayonne, N. J., electric motors, generators.

Material Service Division, Chicago, Ill., building materials, concrete products and coal.

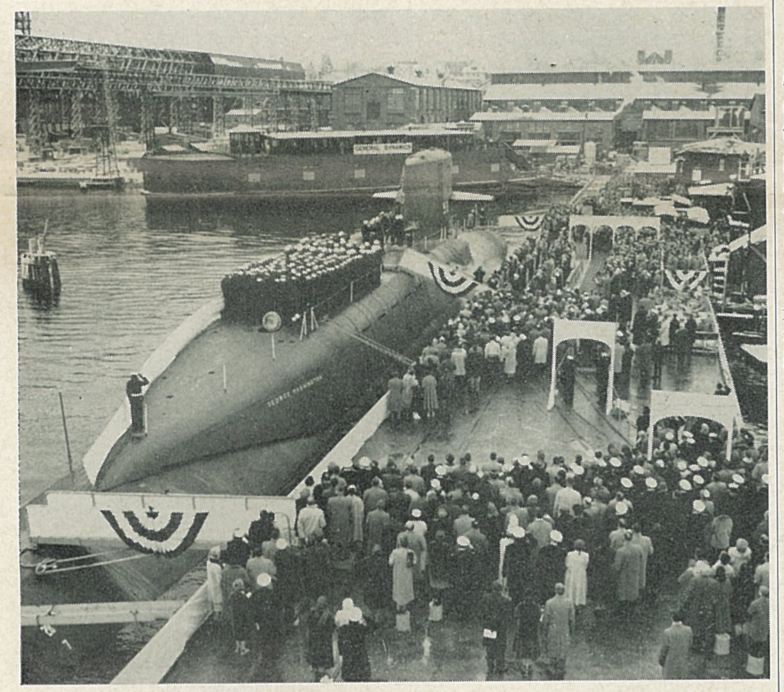
General Dynamics Hdq. To Move in September

NEW YORK — Laurence S. Rockefeller, chairman of the board of Rockefeller Center, Inc., and Frank Pace Jr., chairman of the board of General Dynamics Corporation, last week jointly announced signing a long-term lease by General Dynamics for six floors in the Rockefeller Center building at 9 Rockefeller Plaza, formerly known as the Time and Life Building.

The area comprises six whole floors (75,534 square feet) from the 27th to 32nd floors inclusive, with provision for additional areas to be used for expansion.

The 36-story structure will be renamed the General Dynamics Building upon occupancy, scheduled for Sept. 1, 1960, following a complete renovation of the building. It will serve as executive headquarters for General Dynamics and its widespread operations which include Convair, Electric Boat, Stromberg-Carlson, General Atomic, Liquid Carbonic, Material Service, Electro Dynamic and Galco Divisions, and Canadair Limited, a Montreal subsidiary.

The extensive alteration program for the entire building, now under way, will include a complete redesigning of the lobby, the installation of 12 new high-speed automatic elevators, high velocity central air conditioning and new flush fluorescent lighting with acoustic hung ceilings. This work has been scheduled to coincide with the move of Time, Inc., the principal present tenant, to its new headquarters in the new Time and Life Building at 1271 Avenue of the Americas.



JOINING THE FLEET—USS George Washington, first fleet ballistic missile submarine, built by Electric Boat Division, was commissioned Dec. 30 at Groton, Conn. It will be armed with Polaris missiles.

James McLean Will Succeed Tait As Head of Stromberg-Carlson

ROCHESTER — James D. McLean will join General Dynamics Corporation as president of its Stromberg-Carlson Division, Frank Pace Jr., chairman of the board, announced this month.

McLean, who will also become a senior vice president of General Dynamics and a member of the corporation's board of management, will assume his duties after Feb. 15.

Formerly president of Hoffman Laboratories Division of Hoffman Electronics Corporation in Los Angeles, McLean will succeed Robert C. Tait, president of Stromberg-Carlson since 1949. Tait, senior vice president of General Dynamics, will be associated with the corporate office and will assume new corporate-wide responsibilities.

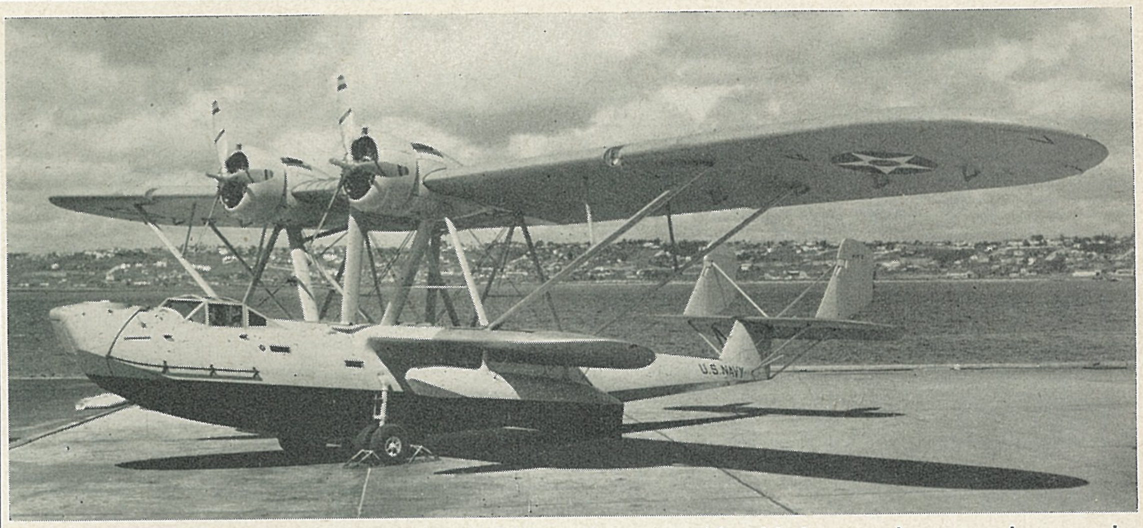
Pace announced also that Allan R. Shilts, controller of Stromberg-Carlson, has been named to the newly-created post of vice president and general manager of Stromberg-Carlson Division.

A graduate of Massachusetts Institute of Technology, McLean holds BS and MS degrees in electrical engineering. Previous to his association with Hoffman, McLean had been for ten years with the Philco Corporation where he served as commercial manager of station WPTZ-TV in Philadelphia, and as vice president and general manager of Philco's government and industrial division. Prior to joining Philco, McLean had been with General Electric for ten years as a development engineer and a sales manager.

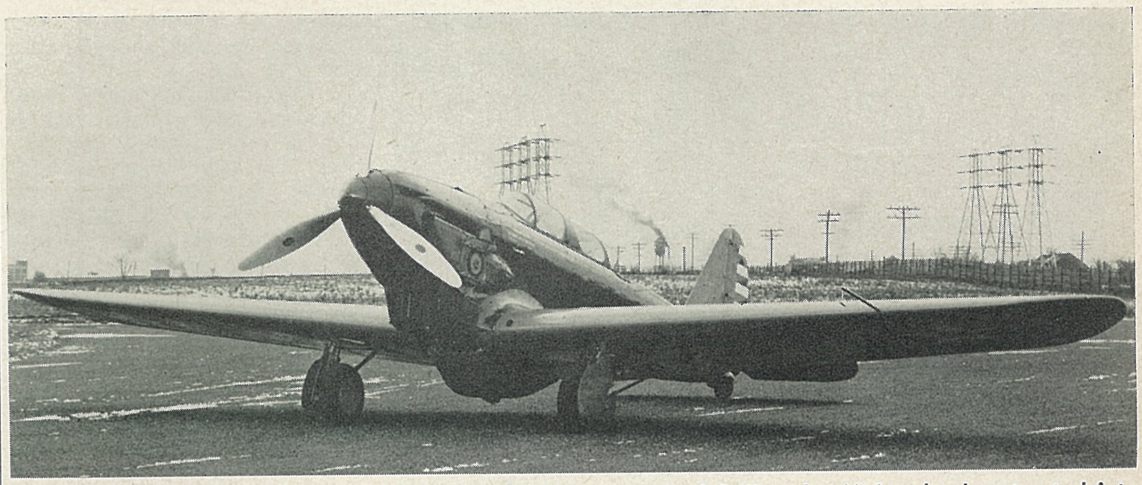
Charities Benefit At Electric Boat

GROTON — Christmas "bonuses" amounting to $30,000 were distributed to 88 organizations in Eastern Connecticut and Rhode Island by the Employees' Community Services Association of Electric Boat Division.

The Christmas donation brings to $97,668 the total amount of money contributed in 1959 by shipyard employees to charitable social and welfare agencies in the areas where employees reside.



REFINEMENT—This is Consolidated P2Y-3 flying boat, considerably improved over predecessors by lifting engines into leading edge of wing and employing newly developed engine cowling, decreasing drag. Airplane is shown at Naval Air Station, San Diego, March 28, 1935.



THE Y1P-25—All-metal, two-place pursuit had top speed of 247 mph. Main wheels retracted into wing. Here it is shown with belly tank. Its predecessor, YP-24, was first fighter with cantilever wing and retractable wheels.

Cowled Engines Faired Into Wing To Improve Speed, Performance

(With this installment, *Convairiety* completes a full year of narrative, outlining Convair's history, as well as that of other pioneer companies that contributed to its growth. The history will continue in regular installment form during 1960.)

★ ★ ★

Consolidated Aircraft's next flying boat refinement (and additional orders) stemmed from studies conducted at Langley Field by Frederic E. Weick of the National Advisory Committee for Aeronautics. He set out to reduce the drag and turbulence created by the clutter of exposed radial cylinders in air-cooled engines. He enclosed the cylinders in a ring cowling, so arranged that cooling air entered the hood at the front and left through a smooth slot at the rear. When tested on an Army AT-5A in 1928 this device produced speed improvements of 10 to 19 mph.

The "N.A.C.A. cowling" quickly came into general use; the Fleetster was one of the first to adopt it. The studies, watched closely by Consolidated, showed that a cowled engine could be faired into a wing without spoiling the wing's efficiency. The last P2Y-1 in production was used to test an I. M. Laddon (chief engineer) modification that lifted the engines into wing nacelles. This plane was redesignated the XP2Y-2 and was given a tryout at Hampton Roads, Va. Improved performance brought Navy contracts for conversion parts to modify boats already built and for 23 additional seaplanes, P2Y-3s.

Foreign sales of the P2Y boats included one each to Colombia and Japan, and six of the dash-3 version to Argentina. This brought Consolidated's total production of PY-type aircraft (including Commodores) to 71 at a total price of over $7 million.

★ ★ ★

Meanwhile, events were shaping up that would open the way for Consolidated's debut in the Army fighter plane business.

The Detroit Aircraft Corp. had been formed in 1929 as a holding company to purchase several firms, including the Lockheed Aircraft Co. of Burbank, Calif. Detroit Aircraft obtained a contract to build the low-wing XP-24, largely through the salesmanship of Jerry Vultee, Lockheed's chief engineer.

Until 1930 the biplane was universally used for fighter and attack designs. Then the Fokker XA-7 of 1930 was developed with low-wing and streamlined wheel pants and set a new pace. First among the new fighters to combine full cantilever wing and fully retractable wheels was the XP-24. The wood wing was built at Burbank and the metal fuselage at Detroit, where Robert J. Woods served as project engineer. Detroit Aircraft was near collapse and Wood has recalled that "the 12 people in the engineering department put in almost unbelievable overtime for about five months on half their regular pay. When the (airplane) was delivered to Wright Field, I rode in the back seat to save train fare."

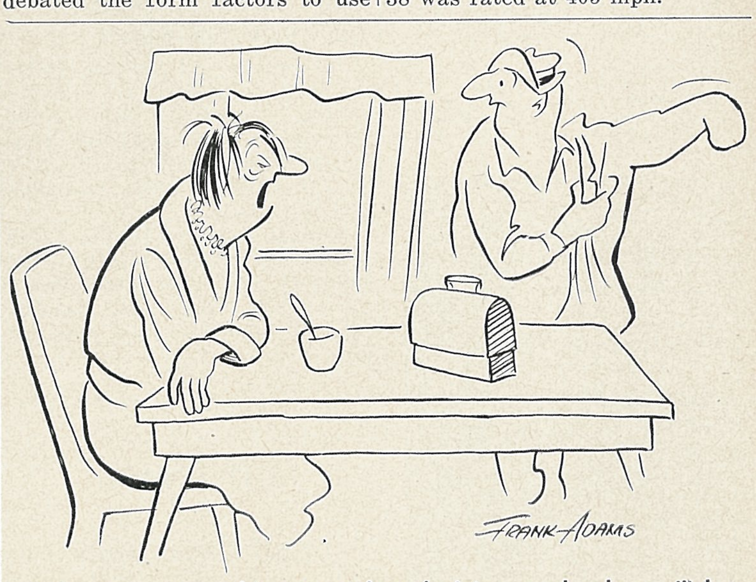
Orders followed for four YP-24s and four YA-11s, but the company shut down. Its Burbank holdings were sold to a new Lockheed Aircraft Corp., organized by Lloyd Stearman to build transports.

Consolidated Aircraft's Reuben Fleet hired Woods and contracted to build two YP-25s, the same plane but with all-metal wing and enlarged tail, and substituting fabric for metal as a covering on the tail control surfaces. This was Consolidated's first experience with metal wings, save in the XBY-1, a Navy bomber adaptation of the Fleetster transport, on which work was under way at about the same time. Engineers debated the form factors to use for allowable wing stress, and wrestled with the layout problem presented when cantilever wheel gear must fold into the wing structure. Fabrication was slow and costly. Fleet later estimated losses on the series of fighter contracts at more than a half million dollars.

Contracts came next for four P-30s and four A-11s (the attack version being the same except for omission of the supercharger). Finally, the Air Corps ordered 50 P-30As. (The designation later was changed to PB-2A, for "pursuit, bi-place."

Capt. Victor H. Strah, chief of the Air Corps flying branch, reported in August, 1934, that the P-30 "is an exceptional performing plane, and is considered by the pilots of the Test Branch as being extremely good in all respects," but "if the pilot does the simplest maneuvers the gunner is valueless." Lt. Donald L. Putt put the PB-2A through 26 hours' testing in April, 1936. He found control "excellent at all speeds," except that it was difficult to start a spin to the right.

The decade was one of swift improvement in fighters. In 1932 the Curtiss Y1P-22s reached the 200 mph mark and the Y1P-25 was the first U.S. pursuit to near the 250 mph level, being rated at 247 mph, though subsequent production versions were slower. The Curtiss P-36A lifted the standard to 300 mph in 1938 and only a year later Lockheed's XP-38 was rated at 405 mph.



"If you want anything special packed in your lunch, you'll have to run out and get it before I can crawl back into bed!"

Log Book Entries

Service Emblems

SAN DIEGO

Service emblems due during the period Jan. 16 through Jan. 31:

Thirty-year: Dept. 6-21, W. A. Schurr; Dept. 231, H. F. McEwan.

Twenty-year: Dept. 6, T. A. Billings, L. V. Clements, G. C. King, H. F. Von Goodat; Dept. 8, J. D. Hayman; Dept. 15, Joseph Dennis Jr.; Dept. 31, J. W. Burgreen, W. E. Hays, C. S. Strand; Dept. 133, J. C. Grant; Dept. 135, J. P. Lessing; Dept. 145, D. M. Sullivan; Dept. 230, J. J. Medina; Dept. 267, J. C. Risner; Dept. 400, R. J. Connell; Dept. 600, J. R. Horner, C. J. Johnson.

Fifteen-year: Dept. 15-1, Margaret R. McNeely; Dept. 25, A. L. Gardner, Alexander Lorentson, H. R. Robb; Dept. 31, W. L. Alldredge; Dept. 138, G. S. Rothrock Jr.; Dept. 271, J. A. Eismann; Dept. 400, P. A. Knowles; Dept. 603, E. F. Arregui, B. F. Grame.

Ten-year: Dept. 1-63, H. D. McCoy; Dept. 6, R. D. Miller, C. R. Tuttle; Dept. 14, D. C. Burns; Dept. 25, Sadie A. Hisbon; Dept. 61, M. E. Morrison Jr.; Dept. 78, M. H. Miller; Dept. 102, Velma B. Cunningham; Dept. 115, J. P. Kincaid, Gertrude H. Rusk; Dept. 148, W. A. Scuderi; Dept. 171, L. H. Wilson.

Dept. 180, J. W. Bratton; Dept. 188, M. H. Duke, S. I. Ellzey; Dept. 201, R. B. Freeman; Dept. 216, Gladys A. Pederson; Dept. 218, Emma P. Tomlinson; Dept. 233, Irene P. Bynum; Dept. 266, P. A. Wegner; Dept. 288, F. P. Sullivan; Dept. 292, Helen H. Christensen, Geraldine C. Stonebreaker, J. R. Thompson; Dept. 400, E. T. Churchman; Dept. 401, G. J. Belberoff; Dept. 603, Ado Ebeling.

Retirements

SAN DIEGO

CARPENTER—Wallace T., Dept. 188-8. Seniority date May 1, 1952, retirement effective Dec. 1, 1959.

COBBS—Earl S., Dept. 14-1. Seniority date April 9, 1942, retirement effective Dec. 30, 1959.

ENTER—Walter, Dept. 201. Seniority date Sept. 14, 1942, retirement effective Jan. 4, 1960.

FRANTZ—Clyde B., Dept. 215. Seniority date Dec. 4, 1953, retirement effective Jan. 4, 1960.

HENRY—Earl G., Dept. 6-51. Seniority date Sept. 11, 1956, retirement effective Dec. 7, 1959.

HUSZKA—John, Dept. 603-2. Seniority date Dec. 16, 1952, retirement effective Nov. 6, 1959.

KRAMBUHL—Otto G., Dept. 288-8. Seniority date Sept. 30, 1955, retirement effective Jan. 4, 1960.

MATTHEWS—James E., Dept. 116. Seniority date Nov. 12, 1940, retirement effective Dec. 30, 1959.

PHILLIPS—Doil C., Dept. 31. Seniority date June 19, 1947, retirement effective Jan. 4, 1960.

SALEM—Donald S., Dept. 401. Seniority date Oct. 31, 1950, retirement effective Dec. 30, 1959.

ZENTZ—Jesse E., Dept. 406. Seniority date Dec. 14, 1951, retirement effective Jan. 4, 1960.

Personals

SAN DIEGO

I wish to express my sincere appreciation for the help given me by the Con-Trib-Club during my recent illness.

William King, Dept. 146

* * *

My sincere thanks and appreciation to friends in Dept. 292 for their many kindnesses and Christmas gift during my convalescence.

Joseph G. Flynn, Dept. 292

* * *

Sincere, heartfelt thanks to Dept. 401 friends for the lovely earrings. I shall always treasure happy memories of our association.

Margie Berube

* * *

We are grateful for the many kindnesses shown by employees of Dept. 116, the beautiful flowers and cards of sympathy sent during our recent bereavement.

Mrs. Morton Furst
Regina DeWitt

Births

SAN DIEGO

KIDD—Son, Orion Matthew, 7 lbs., 8 oz., born Dec. 31 to Mr. and Mrs. W. D. Kidd, Dept. 101.

MARKOWSKI—Son, Stephen Michael, 6 lbs., 2 oz., born Dec. 30 to Mr. and Mrs. W. A. Markowski, Dept. 102.

NEWTON—Son, Edward Dean, 7 lbs., 13 oz., born Jan. 6 to Mr. and Mrs. Dean W. Newton, Dept. 401-4.

SKROBIZA—Son, Sheridan Kirk, 6 lbs., 12 oz., born Dec. 24 to Mr. and Mrs. Bill Skrobiza, Dept. 197-5.

VILLEGAS—Daughter, Vivian Yvette, 5 lbs., 4 oz., born Dec. 16 to Mr. and Mrs. Eugene Villegas, Dept. 31.

Deaths

SAN DIEGO

ARMSTRONG — Wilbourne D., Dept. 135. Died Dec. 31. Survived by wife, Anna, three stepdaughters, stepson, brother.

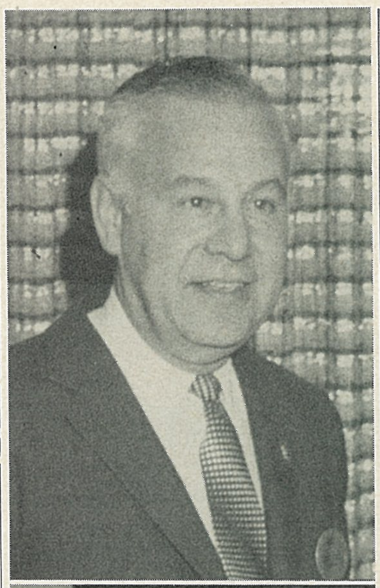
COBB—Leonard R., Dept. 135. Killed in traffic accident Jan. 4. Survived by parents.

FURST—Morton, Dept. 116. Died Dec. 31. Survived by wife, Theresa; daughter, Mrs. Regina DeWitt; five sisters; three brothers.

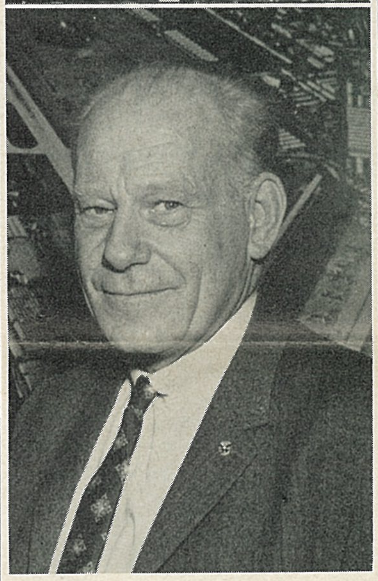
McCABE—Leslie G., Dept. 407. Died Jan. 5. Survived by wife, Rose.

TEMPLETON—Orlo R., Dept. 25. Died Jan. 11. Survived by wife, Mary H., three daughters, mother, sister, granddaughter.









THIRTY-FIVE — Membership in the exclusive "35-year" club increased early this month when E. H. Wesp, Dept. 406 (upper), R. S. Carson, Dept. 192-7 (center), and Eugene Bitzer, Dept. 603-1, received service emblems from B. F. Coggan, San Diego manager.

Badminton Tourney Set for SD, Astro

A Convair championship badminton tournament under the joint sponsorship of Astronautics and San Diego CRA is now set for Feb. 27-28 at the Federal Building, Balboa Park.

Entries open Monday (Jan. 25). Information is available through Astro's Les Marr, ext. 1780, or San Diego's Tom Richardson, ext. 2354, Plant 1.

880, Atlas Jewelry Reaches SD Store

A new line of 880 tie tacks, cuff links, pins and cigarette lighters is now on sale at the Employees' Store on Pacific Hwy. across from Convair SD Plant 1, W. E. Rickman, store manager, said this week.

Similar items, with the Atlas missile design, are also on sale. Rickman said new store hours, 11 a.m. to 4:30 p.m., Monday through Friday, are now in effect.

Jerry Barber To Join Pros at Golf Meeting

Jerry Barber has been added to the list of top pro golfers who will appear at the second annual "Pro-Guest" night Jan. 29 at the Catamaran Hotel, 3999 Mission Blvd.

Barber joins such stars as Art Wall, Billy Casper, Mike Souchak and Dutch Harrison, all of whom will appear at the event sponsored by the Convair Golf Club. It starts with social hour at 6 p.m., followed by dinner at 7.

Tickets, priced at $4 each, are being sold on a first-come, first-served basis because capacity has been set at 300. They are available to all interested Convair SD and Astro folk and guests.

Each of the pro golfers will take turns fielding clinic questions from the audience. Questions, however, should be submitted no later than Jan. 26, to either Hal Purnell, ext. 1313, Astro, or Curley Maxfield, ext. 694, SD Plant 2.

Purnell and Maxfield are also selling tickets for the event. Others handling reservations are: Judd Kenney, ext. 694, Astro; Mort Smith, ext. 1051, Plant 2; and Alma, ext. 218, Plant 2.

Globetrotters Show Sold Out

A complete sellout of all tickets for the Harlem Globetrotters appearance Feb. 1 at San Diego Arena was reported last week by employee services at both Convair San Diego and Astronautics.

Some 2,000 tickets were available at each of the Convair operating divisions; both locations were sold out after the first day tickets went on sale. Prices ranged between $1 and $1.75.

The event is a special "Convair Night" sports attraction, sponsored by CRAs at SD and Astro. The famed Globetrotters will meet an Astro cage team, made up of former collegiate and prep school stars. Tennis stars Althea Gibson and Karol Fageros will play an exhibition at halftime.

New Course Starts In Mountaineering

A course in Basic Mountaineering, sponsored by the San Diego Chapter of the Sierra Club, will be held, starting Feb. 2, on Tuesday evenings at the Alice Birney Elementary School Auditorium, Park Blvd. and El Cajon Ave., from 7:30 to 9:30 p.m.

A. Van Norman (Dept. 6) is one of the instructors. He said purpose of course is to equip the outdoorsman, hiker, fisherman, and hunter with the basic elements of safety and mountaineering techniques for the safe enjoyment of our wilderness areas. For more information, call Van Norman, AC-2-4867.

GOLF ENTRIES OPEN FOR SD CRA SWEEPS

Registration opens today (Jan. 20) for the next Convair SD CRA golf sweeps to be played Feb. 6-7 at Rancho Santa Fe. To register, call ext. 1705, Plant 1; deadline is Jan. 29.

CRA Considering Wrestling Team

A CRA-sponsored wrestling team will be entered in AAU competition if enough try out for the squad, Pete Beyrer, CRA commissioner, reported this week.

Any interested Convair SD men (and sons over 16 years of age) are asked to attend a tryout and meeting next Tuesday (Jan. 26), between 7 and 9 p.m., in the CRA Clubhouse on Pacific Hwy.

Entries will be accepted in all weight classes and AAU collegiate rules will be in force. Efforts are being made to enlist the services of a qualified coach, Beyrer added.

Is It News?

Call Convairiety

Marshals Needed To Work Tourney

San Diego or Astronautics men interested in working the San Diego Open as marshals are needed for either the two-day weekend or the full four days of the tournament.

Those interested are asked to contact either Tom Wills, ext. 3373, or Hal Purnell, ext. 1313, both of Astronautics.

Those helping out are given free parking, free admission and free lunches during their working hours.

Free Boating Course Starts

A free small boating and piloting course, open to all Convair SD and Astro folk, will be sponsored by the San Diego Power Squadron starting in February.

William F. Presch, senior structures engineer at Convair SD, is commander of the local unit of the United States Power Squadrons.

He said topics covered in the course include equipment and government regulations, rules of the nautical road, seamanship, safety afloat, the mariner's compass, aids to navigation, charts and piloting, and manners and customs on shipboard.

Registration will be held, between 7:30 and 9:30 p.m., at the following locations: Feb. 2, Helix High School, La Mesa; Feb. 3, Cabrillo School, 3120 Talbot St., San Diego; Feb. 4, Sweetwater High School, National City; Feb. 16, Carlsbad High School, Carlsbad.

United States Power Squadrons is a nationwide association of boatmen dedicated to the promotion of safety, good citizenship and good fellowship afloat.

Garden Club Sets Annual Rose Show April 10 in Park

Convair SD Garden Club members have set April 10 as the date for their annual Rose Show in the Floral Association Bldg., Balboa Park.

Everett Henderson, club president, advised all Convair SD folk who will wish to enter the show to cut roses back immediately.

Five or six buds should be left on the canes for new growth, Henderson said, and the top bud should point to the outside of the bush for uniformity of growth. The cut should be made on a slant, but at no point should the cut be lower than the top bud.

All dead wood should be trimmed, leaves removed and the bush and surrounding ground sprayed with a heavy oil spray to kill all insects.

Each bush should be given one to two cupfuls of super phosphate and soil sulpher, well mixed. This will start and encourage good root growth, Henderson said.

Now is the time to get the best bare root roses at nurseries, including all the 1960 varieties, he added.

Rockhounds Install New Officer Slate

Virginia Forbes (wife of George Forbes, Dept. 180) was installed as president of the CRA Rockhound Club at a meeting last week, Danny Whorton, commissioner, reports.

Others assuming office were Ralph Phillippi (Dept. 6), vice president; Regina Wawrzynski (wife of Ed Wawrzynski, Dept. 401-1), secretary; and G. E. Heslop (Dept. 31), treasurer.

Whorton said next club event will be a field trip to Picacho, 23 miles north of Yuma, probably the third week in February.

A trip over the New Year's weekend to Wiley Well was attended by 29 persons. Numerous specimens of fire agate were found.

Tickets For PGA Tourney At SD, Astro

Employee services at Convair San Diego and Astronautics are now selling tickets for the 1960 San Diego PGA Golf Tournament Jan. 27-31 at Mission Valley Country Club.

Ducats are priced at $1, good for one day; youngsters can see the $20,000 Open for 50¢ a day. Prices are the same for the $5,000 pro-amateur tourney, an 18-hole event, on Jan. 27.

Tommy Bolt, Bob Rosburg, Gene Littler, Arnold Palmer and Marty Furgol are among former San Diego Open champs back again for another try.

Furgol won last year's event, finishing strongly with a 274, or 14 under par. Others among the host of big name golfers who will enter are George Bayer, Billy Casper, Doug Ford, Dow Finsterwald.

T. G. Lanphier Jr., Convair vice president and assistant to the president, is chairman of the sponsor's committee. The Open is sponsored by the County Junior Golf Association and all net proceeds will be divided equally between that organization, for the furtherance of junior golf in the San Diego area, and the Open management for perpetuation of the tourney.

SD employees located at Rose Canyon can obtain tickets by contacting Dorothy Reed, ext. 2239; handling tickets at Fordham St. is Bessie Cooper, ext. 100.

Deadline Set For Dancing Registration

Next week will be the final opportunity for Astronautics and San Diego employees to enroll in a new series of ballroom dancing classes under the joint sponsorship of the two CRA organizations.

Classes began the second week in January. Next series will start about mid-April. Between the starting dates employees may enter the dance program by taking private lessons until they are accomplished enough to join existing classes.

Classes are held at Pacific Ballroom, 1106 Broadway.

New classes include an 8:30 p.m. Monday session for adult brush-up and beginning Latin and an 8:30 p.m. Friday adult Latin session.

Existing classes, which are still open, also include: 7:30 p.m. Monday, intermediate adults; 7:30 p.m. Thursday, teen-age; 8:30 p.m. Thursday, advanced adults; and 7:30 p.m. Friday, intermediate adults.

A new feature offered for the first time this year is a 7:30 p.m. Tuesday practice session. This is open to all Astro and SD employees without charge.

Wednesday nights are open for private instruction.

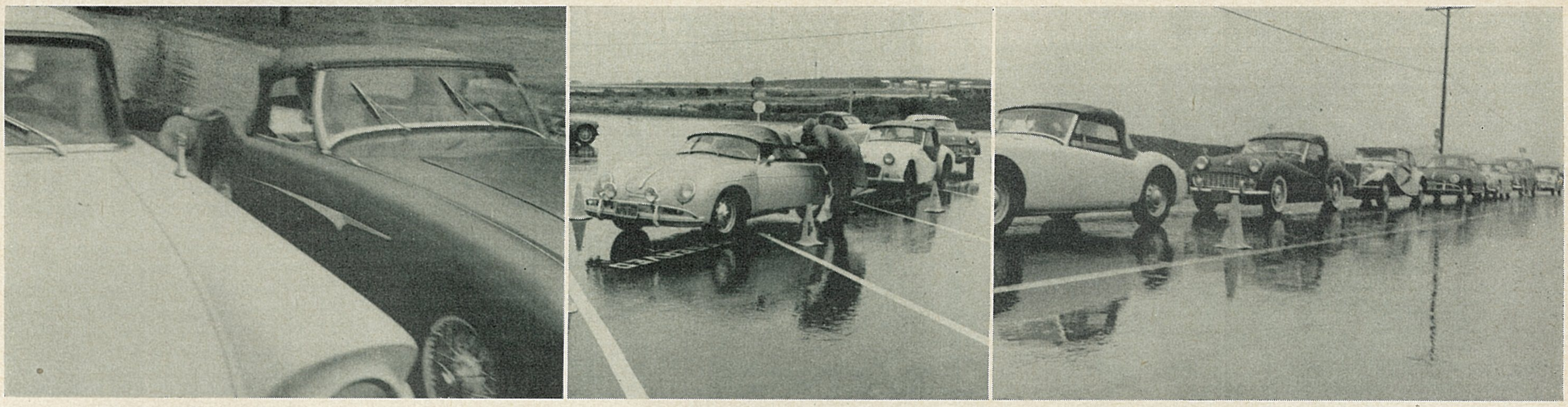
All instruction is offered to employees at a reduced rate through CRA subsidy.

Extension Offering Engineering Review

Enrollment still is open for the last of four engineering review courses being given by the University of California Extension in San Diego.

Last course in the series will be "Structural Analysis and Design for Civil Engineers" which opens Jan. 26. First sessions of the other courses, "Electrical Engineering Review," "Hydraulics for Civil Engineers," and "Review of Mechanical Engineering Fundamentals," were held the first week in January. Enrollment closed with the second class of each course.

The courses are offered for engineers and students preparing for examinations to be given in April by the State Board of Registrations for Civil and Professional Engineers.



THE RAINS CAME DOWN—"Seat of Pants" rally sponsored by Convair SD Sports Car Club Jan. 10 attracted 124 entries, not a new club record, but an amazing turnout considering that pouring, all-day rain almost washed event out completely. Photos depict wet activity at both starting point and on rally route.

Proof, Mint Sets On Sale Now for Coin Collectors

Proof sets for 1960 from the Philadelphia mint and uncirculated 1959 mint sets from the Treasury Department are now available, Joe Miller, Convair SD Coin Club spokesman, announced this week.

Proof sets are priced at $2.10 each, Miller said. They can be obtained in quantities of one, two, five, 10, 25, 50 or multiples of 100 sets only. Orders should be directed to Mrs. Rae V. Biester, Superintendent, U. S. Mint, 16th and Spring St., Philadelphia 30, Pa.

The '59 mint sets can be purchased until March 31 of this year. Miller said they are sold in sets only. Each contains four of the following coins (two from each of the mints now operating): half-dollar, quarter, dime, nickel, and cent. Cost of one set is $4.43.

Checks should be drawn to Treasurer, U. S. Mint, Cash Division, Washington 25, D. C. No personal checks, unless certified, will be accepted. Money orders or bank cashiers' checks are preferred.

Election of a new slate of Coin Club officers for 1960 was the main business to be transacted at a meeting last night (Jan. 19) in the Hearing Aid Society Bldg.

CRA HOOP SQUADS WIN FIRST GAMES

Convair SD basketball entries in city competition started out with victories on all fronts as league action got under way last week.

In the Industrial "A" league, Tool Manufacturing ran over Fire Department "B" by a 48-26 score. Convair's entry in the Metro league won its first game with a 47-33 decision over Local 89. Convair SD girls' hoop entry, victorious in the pre-season tourney, was awarded a first-game forfeit over the Foul Outs.

In shop league activity, opening victories were registered by Dept. 97, Dept. 6 Electrical and Dept. 6 Physics. Dept. 97 whipped Dept. 603, 33-11; Dept. 6 Electrical edged 880 Jets 32-30; and Dept. 6 Physics sank Dept. 280, 46-24.

ART CLUB SEEKS NEW SD MEMBERS

Requests from Convair SD art enthusiasts have prompted CRA to set an organizational meeting for the Art Club next Tuesday (Jan. 26) at 8 p.m. in the Convair Studio (No. 36), in the Spanish Village, Balboa Park.

Gil Crosthwaite, CRA commissioner, urged any interested Convair SD folk to attend the meeting. He said a sufficient number of persons must display interest, otherwise the Art Club will be disbanded.

In past years, the Art Club has met every other Wednesday, conducted life drawing classes, held competitions and exhibits for members, as well as art classes for children.

CRA Sports & Recreation Convairiety

March Dates Announced For Keg Championships

Nineteenth annual Convair SD championship bowling tournament will be held March 5-6, 12-13 and 19-20 at Pacific Recreation Lanes, Jim Hayman and Mike Brooks, co-commissioners of bowling, announced this week.

Entry blanks will be available at employee services, Plants 1 and 2, and from league secretaries some time the week of Jan. 24.

"All keglers are urged to fill out the forms and turn them in as quickly as possible," Hayman said. "Money deposits should accompany entries so that we can assure all bowlers of reservations."

Deadline for entries in the championship keg tourney is Feb. 19. Last year, almost 500 keglers participated, winning almost 100 trophies and assorted awards.

Tourney events this year will include team competition, singles and doubles, and a special all-events bracket.

Following are some of the rules keglers should observe when filling out forms:

Five sanctioned players may form a team and enter without payment of additional membership dues.

Bowlers can play on more than one team but should indicate this fact on each entry form they fill out. Hayman said this holds only for keglers who are team members during regular league play.

Only one entry allowed in doubles and singles; doubles only and singles only will not be accepted; women's team will compete in a mixed division rather than separately.

Ratio for prizes will be one for every five bowlers.

J. B. CARROLL TOPS SD PISTOL SHOOT

J. B. Carroll (Dept. 3-1), a comparative newcomer to Convair SD Pistol Club events, outscored perennial favorites to win the master class Jan. 10.

Carroll tallied 290 points, edging Joe Williamson (Dept. 401) by three points, Ash Bishop, CRA commissioner, reported.

In the expert class, Carl Hornburg (Dept. 139) placed first with 285 points, followed by R. D. Miller (Dept. 600) with 274. Dale Young (Dept. 31) and Dorcus Utter (husband in Dept. 129) finished one-two in the sharpshooter class.

In the national match event, B. L. Broadway (Dept. 603) led with 283 points, trailed by W. G. Walker (Dept. 6) with 277 and G. McFarland (Dept. 6) with 276.

Review Classes Set For Ground School

Any interested private flying enthusiasts at Convair SD are invited to take advantage of three Wednesday evening ground school sessions which will be held tonight (Jan. 20), Jan. 27 and Feb. 3.

A sample of an FAA examination will be reviewed as well as all ground school course subject matter, according to Rex Robinson, ground school instructor.

Classes are held, starting at 7:30 p.m., at Jim's Air Service, Lindbergh Field. These review classes will be the last offered for some time. The next ground school course, sponsored by the CRA Solo Flyers, will be an abbreviated session. It will start Feb. 3, run for about eight weeks. After that, it may be a period of months before another ground school class is offered.

For additional information, contact Robinson, ext. 2271, Plant 1.

Newton Grant New SD Chess Champion

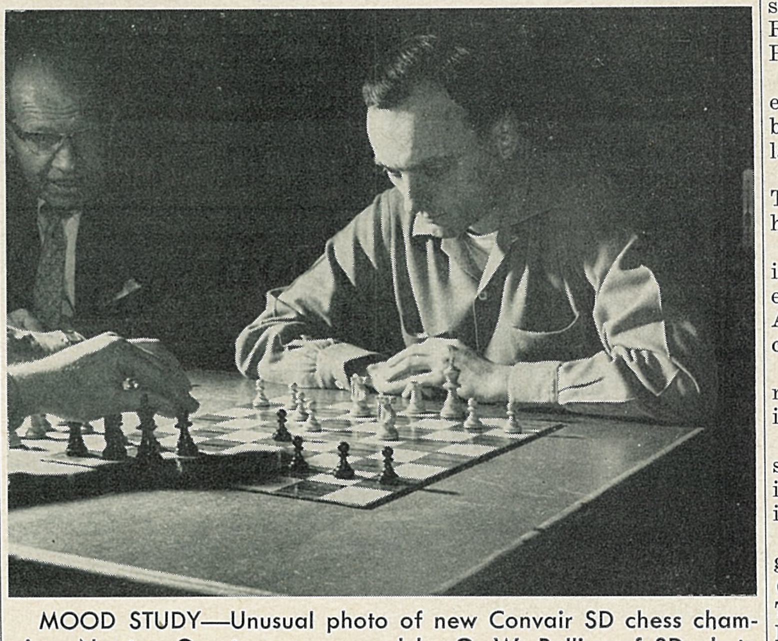
Convair SD crowned a new chess champion recently when Newton Grant (Dept. 6) swept undefeated through six matches to win the tourney title.

Runner-up was Michael Kotlan (mother in Dept. 292).

In 1958, Grant finished in a tie for second in the round robin championship event, which is recognized by the U.S. Chess Federation.

Grant is a nationally rated chess expert, was the only Convair SD player to best Imre Konig, international master, at a Convair SD exhibition last year.

A special series of radio matches with the Convair Fort Worth Chess Club is in the offing. Facilities of Radio Clubs at San Diego and Fort Worth will be used to transmit moves.



MOOD STUDY—Unusual photo of new Convair SD chess champion, Newton Grant, was snapped by O. W. Rollins of SD photo lab. Picture emphasizes mental aspect of game that makes chess the favorite it is. At Grant's right is Chess Club member, Z. T. McKinney.

Rain Fails to Stop Rally; 124 Enter' Seat of Pants'

Pouring rain failed to dampen the enthusiasm of nearly 250 persons who entered the Convair SD Sports Car Club's "Seat of the Pants" rally Sunday (Jan. 10).

Entries in the event totaled 124, not a new club record (last year's rally, held in bright sunshine, drew 191 entries), but something of a testimonial to the hardy spirits of drivers and navigators.

Rallymaster was Bob Dunn (Dept. 6), assisted by Barrie Freeman (Dept. 6). Dunn had a special word of praise for all club members who assisted in running the rally. They manned such "wet" positions as the registration desk, starting line and check points.

Guests swept the top places in open, beginners, and novice classes. Bill Hale and Bill Boyd of the Corvette Sports Car Club took first place in the open class with a total time error of 29 seconds. Driver-navigator teams of second and third place winners in the open class were Chuck and Johnny McNair, Pat Blackmore and Elaine Tucker.

In a special class for Convair SD club members, winners were: Bill and Hilda Ochodnicky, first; Peter and Alma Aperlo, second; and Jack Wasserboehr and Maryanna Kienholz, third.

Carol Simpson and J. R. Koon won first place in the beginner class; top team in the novice class was W. F. and Rick Blanchard.

Two teams from Convair Astronautics placed among the winners in the open category. "Judge" and Steve Penick were ranked fourth, and James and Joanne McRae snagged eighth.

Next meeting of the SD Sports Car Club will be held on Wednesday (Feb. 3) in the Natural History Museum, Balboa Park at 7:30 p.m.

Judging for Best Print, Slide Set By CRA Lens Club

Lynn Fayman, professional La Jolla photographer, will select the best print and slide of the year from winning entries in Convair SD CRA Camera Club quarterly contests during 1959.

The judging will take place at a club meeting Jan. 25 that starts at 7:30 p.m. in the Photo Arts Bldg., Balboa Park. The selection will be accompanied by comments and suggestions, followed by a short talk.

All club members, as well as any interested visitors, are urged to attend, according to Ron Ainsworth, club spokesman.

On Jan. 31 members and guests will meet at the Wind and Sea Beach in La Jolla at 11 a.m. for a model shoot and outing. Activities have been scheduled until 3:30 p.m. Among models will be pretty Pat and Linda Waldo (daughters of Irvin Waldo, Dept. 401).

CRA Calendar

(Convair SD Recreation Association has some 40 activities in operation. For information on SD sports, call CRA headquarters, ext. 1245, Plant 1.)

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ARCHERY CLUB — Meeting tomorrow (Jan. 21) at 7:30 p.m., CRA Clubhouse, Pacific Hwy.

ART CLUB — Organizational meeting Tuesday (Jan. 26) at 8 p.m., Convair Studio (No. 36), Spanish Village, Balboa Park.

BADMINTON — Open play for families Tuesday evenings at 7:30 in Balboa Park Federal Bldg.

BOWLING — Registration opens week of Jan. 24 for SD plant championship tourney to be held March 5-6, 12-13 and 19-20 at Pacific Recreation Lanes.

BRIDGE CLUB — Next session Tuesday (Feb. 2), 7:30 p.m., Hotel Barcelona, 4th and Juniper.

CAMERA CLUB — Judging of top print and slide of year at meeting Jan. 25, 7:30 p.m., Photo Arts Bldg., Balboa Park. Model shoot Jan. 31 at Wind and Sea Beach in La Jolla at 11 a.m.

CHORALAIRES — Rehearsals each Monday evening at 7:30 in CRA Clubhouse on Pacific Hwy.

GOLF — Entries open today (Jan. 20) for Convair SD CRA sweeps to be played Feb. 6-7 at Rancho Santa Fe. Call ext. 1705, Plant 1.

ICE SKATING—Convair night every Thursday; discount rates between 6:30 and 8 p.m. at Iceland, 6055 Lake Murray Blvd.

JUDO — Workouts every Thursday, 7:30 p.m., CRA Clubhouse on Pacific Hwy.

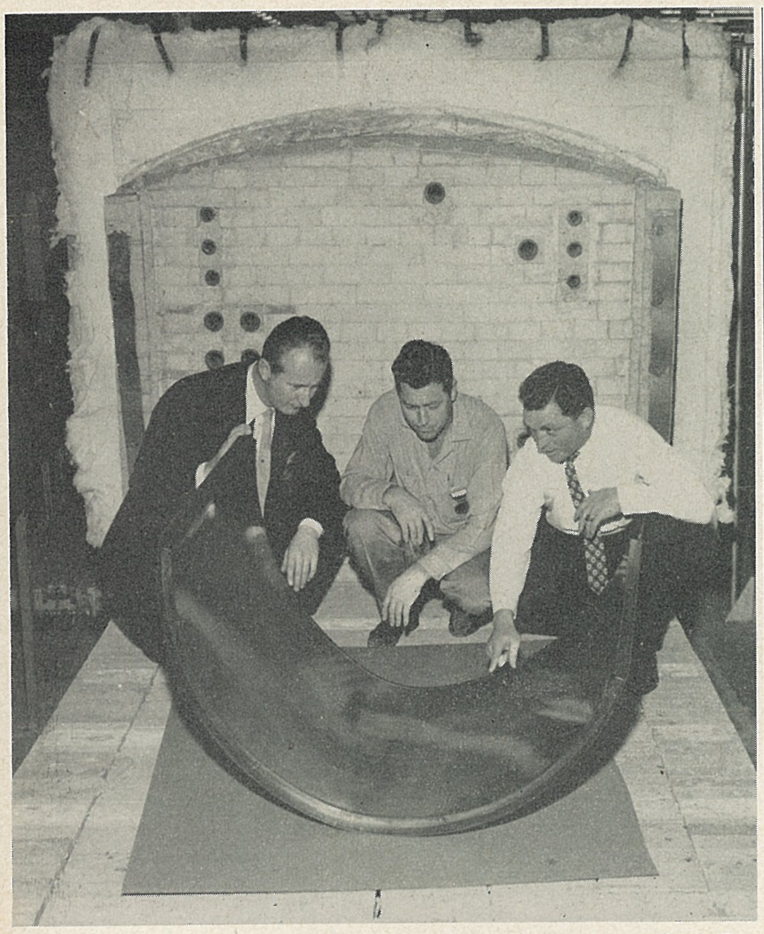
MOVIES — Reduced price movies each Tuesday night at Academy Theater, 3721 University Ave. Admission, adults, 25¢; children, 15¢.

RADIO CLUB — Meeting tomorrow night (Jan. 21) at 7:30 in Harbor Drive headquarters.

SPANISH CLASSES — New schedule for beginners, intermediate and advanced students now in progress.

SOLO FLYERS — Review ground school classes tonight (Jan. 20), Jan. 27 and Feb. 3 at 7:30 p.m., Jim's Air Service, Lindbergh Field.

SPORTS CAR CLUB — Next meeting 7:30 p.m. Wednesday (Feb. 3), Natural History Museum, Balboa Park.



CONVAIR FIRST—Inspecting 180-degree brazed panel at Fort Worth, believed to be first made anywhere, are left to right: Frank Darby, senior design engineer; J. D. Flowers, Dept. 34; and J. L. Dreiling, Dept. 34 assistant foreman.

FW Develops 180-Degree Panel; Believed to Be Industry First

Convair FW's Dept. 34 has manufactured what is believed to be the first 180-degree stainless steel brazed panel.

The new panel is cheaper and lighter than the panel now manufactured for the nacelle section of the B-58 Hustler.

Heretofore, the 180-degree panel was made by splicing three 60-degree panels together, according to J. L. Dreiling, assistant foreman in Dept. 34.

"The new process for making 180-degree panels eliminates splicing, which has always been a time-consuming and costly process," Dreiling said.

The new panel is six to eight pounds lighter than its predecessor.

An improvement in the brazing technique made manufacture of the new panel possible, said Frank Darby, senior design engineer.

"Essentially," he said, "we learned to heat the panels rapidly and to control the temperature.

"Previously, we couldn't cool the panel quickly enough after it had been brazed at above 1600 degrees temperature. This caused alloy to drip from high points on the panel.

"In the new method of brazing, the panel was transferred to a heater that is not enclosed in a retort (a protective enclosure in which panels are normally placed during brazing). This helped eliminate the heat mass, thereby permitting the panel to be heated and cooled more rapidly. Thus the alloy flow-down was either eliminated or greatly reduced."

Darby added that Depts. 23 and 28 helped develop the new procedure. The panel was three years in development.

Pilot Logs 40-Hour 'Week' in B-58, Ranges From Idaho to Carolinas

A full "work week" behind the world's speediest "desk"—that's the December achievement of Val Prahl, Convair Fort Worth Dept. 12, first pilot ever to fly 40 hours in a B-58 during one month.

Prahl's record month of flying time (actually 43 hours plus) was made during a series of bomb-nav system demonstrations in Hustler No. 30. Flying most of the missions with crew members Jack Denton and Walt Simon, Prahl covered the United States from Boise, Idaho, to Charlotte, N. C.

There's no place Prahl would rather be than behind his "desk." Ask him how he likes spending so much time in a B-58, and the reply is a beaming smile.

"It's the finest airplane I ever flew," he grins.



40-HOUR "WEEK"—Pilot Val Prahl of Fort Worth is first to log 40 hours in a month in a B-58 cockpit. He achieved mark in December. Prahl flew No. 30 Hustler on bomb-nav demonstrations across all parts of country.

Stretching Subcontract Dollar Aim of Intensive 'Prices and Costs' Course

An intensive course for improvement of procurement and pricing capabilities is now under way at Convair San Diego.

Over 120 people representing four divisions of General Dynamics Corporation are entered in the estimating and pricing course brought to Convair through cosponsorship of SD and Astro educational services. The course, titled "Prices, Costs, and Contracts," is taught by six specialists of Harbridge House, Inc., educational consultant firm headquartered at Boston, Mass.

In emphasizing the importance of the program, R. F. Smith, assistant to Convair vice president-administration, said, "We anticipate concrete results from this course in the direction of value control within the company.

"This course is important," he continued, "not only as a means of improving our purchasing, sub-contracting, and contracting practices, but as a part of the long-range program at Convair for development of professional personnel in all fields."

He explained that other educational programs will be organized on an inter-operating division basis as the need and opportunity arises in the future.

T. J. Sullivan, SD assistant manager-contracts, customer service, and material, said in his remarks at the opening sessions of the four classes, that the program is "an answer to the urgent need for cost reduction in the procurement field where more than half of the company's sales dollar is spent."

Students have been selected by department heads from purchasing, contracts, subcontracts, estimating, and accounting functions. Entered in the current course are 75 from Convair SD; 45 from Astro; three from General Office; one, Stromberg-Carlson; and two from General Atomic.

Classes will be held three times a week during January, then reconvene for four additional weeks in May. One-day seminars will be held at the end of February and March.

The course, arranged specifically for General Dynamics Corporation to meet needs of subcontract and price analysts, estimators, and contract managers, will deal with basic cost elements, cost/profit relationships, comparative cost and value analysis. Negotiation strategy and techniques will be studied as well as means of bringing engineering and purchasing together to obtain the "best buy" in terms of performance, price, and delivery.

The program is an adaptation of the 14-week advanced pricing school conducted by Harbridge House, Inc., for the Air Force.

The same course was given last summer exclusively for Astro personnel and is now being held at Convair Fort Worth for 60 people.

Convair's presentation is jointly coordinated by Smith; R. H. Nall, SD educational services supervisor; and Richard Pferdner of Astronautics educational services.

MANAGEMENT TEAM CONFERS AT DELTA ON 880 OPERATION

A top management team from Convair San Diego was at Delta Airlines headquarters in Atlanta, Ga., last week to meet with executives of the airline, soon to be flying Convair 880s.

Delta's method of operation and plans for incorporating the 880 jet transport into its air service were discussed during the Jan. 13 visit.

Making the trip from San Diego were B. F. Coggan, Convair vice president and SD manager; T. J. Sullivan, SD assistant manager; D. H. Digges, manager commercial contracts; W. W. Fox, chief engineer; B. J. Simons, senior project engineer; O. W. Harper, acting manager customer service; L. J. Bordelon, chief transport service; and John Doig, chief service parts.

The Delta visit was the second one of this kind to be made recently by Convair SD men. A similar delegation, headed by Coggan, met with TWA administrators last fall at Kansas City, Mo.

Atlas Accomplishment Praised by President

President Eisenhower this month lauded the Convair-produced Atlas missile in his State of the Union message.

He pointed out that during the past year the nation's long-range striking power had taken on new strength with Atlas missiles entering operational inventory.

"Such performance," the President said, "is a great tribute to American scientists and engineers, who in the past five years have had to telescope time and technology to develop these long-range ballistic missiles, where America had none before."





COST STUDY—At top are part of 120 General Dynamics men enrolled in course on prices and costs now under way at SD. Below, key men, left to right: R. H. Nall, SD educational services; P. B. Laubach, Harbridge House, Inc., senior associate; R. F. Smith, Convair assistant to vice president-administration; W. R. Bruce, SD manager of material; H. M. Hague, Harbridge House vice president; T. J. Sullivan, assistant SD manager; Richard Pferdner, Astronautics training specialist; H. W. Rubottom, chief SD educational services.

Always Room For Improvement, Hicks Tells Cost Class at FW

"You're the best in your field, but there's no law saying you can't improve."

This was the statement of M. L. Hicks, assistant manager at Convair Fort Worth, as he kicked off the opening session of a month-long course on prices, costs and contracts being given at the FW plant by Harbridge House, a nationally-known management consultant firm.

As Hicks pointed out, the purpose of the course is to provide advanced training for men already well-versed in their fields. About 60 members of materials, sub-systems procurement, contracts, and estimating departments at Fort Worth are participating.

The course extends through January, with sessions every morning and afternoon during the week—half the group attending from 8-11:45 a.m. and the other half from 1-4:15 p.m.

Originally prepared and presented at Convair Astronautics, the course features the "case study" method of instruction. Actual cases are investigated in small, professional seminar-type study groups.

Supplementing case studies are lectures by four Harbridge House instructors. Stephen A. Falk and Neill B. Lawton will serve as instructors for the first two weeks. Peter B. Laubach and Frank J. Traversi are on deck for the second two weeks.

All four have been associated with the Harvard University Graduate School of Business.

Educational services section of personnel department is coordinating the classes in the Fort Worth plant.



CLASS AT FW—Scenes like this are typical in month-long course on prices, costs, and contracts being offered to about 60 Convair FW people.

C-V CONVAIR

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SAN DIEGO, POMONA, ANTELOPE VALLEY, VANDENBERG AFB, CALIF. AFMTC, CAPE CANAVERAL, FLA., FORT WORTH, TEX.



READY TO GO—Delta Air Lines' first Convair 880, which will be first Convair jet transport to go to customer airline, is shown during successful shakedown Jan. 22. W. B. Harwell, SD chief of production flight, was at controls during 3-hr., 20-min. first flight.

'Test-Tactical' Job Awarded To Convair SD

First Air Force F-106s to enter a "test to tactical" modification program at San Diego are expected to arrive within the next week or ten days.

They are being trucked to SD's Plant 2 from Palmdale.

SAAMA (San Antonio Air Materiel Area) awarded an $8 million contract last week which involves conversion of nine F-106s and ordering long lead time items for modifying 26 more airplanes. B. F. Coggan, manager of the San Diego operating division, said the program to convert all 35 test airplanes to tactical configuration will cost in excess of $20 million and will give the Air Force "combat-ready aircraft at considerably less cost than buying the same number of new planes."

The first part of the program, funded through June, 1960, calls for converting eight single-seat F-106s and one two-seat F-106B. The 26 aircraft to follow include 20 F-106s and six F-106Bs.

Coggan indicated that the program will have a steadying effect upon both Plant 2's work force and personnel at Palmdale, extending the work volume in prospect.

Work will consist of replacing the present nose and cockpit sections of the aircraft with new sections. The refitted aircraft will include such new equipment as supersonic ejection seats, vertical display instrument panels, updated MA-1 electronic guidance and fire control systems, with horizontal situation indicator and automatic modes for navigation and attack.

Modified planes will have the same combat capability as F-106s now coming off the production line. The first modified F-106 will be delivered in January, 1961, and the last in June, 1961.

Airplanes to be modified have been used in various test programs by Convair, Hughes Aircraft Company (which produces the MA-1 system), National Advisory Committee for Aeronautics, and the Air Force.

Eleven of these test airplanes have been in storage at Convair's Palmdale facility. Nose sections and wings of these planes will be taken off at Palmdale and the planes trucked to San Diego for modification. The remaining 24 will be flown into San Diego from other locations.

New nose and cockpit sections for the single-place F-106s will be produced at Convair in San Diego. Those for the two-place F-106s will be produced at Convair Fort Worth and shipped to San Diego for assembly.

Planes to be modified will be phased into the F-106 production line. As they are completed, they will be taken to the field opera-

(Continued on Page 2)

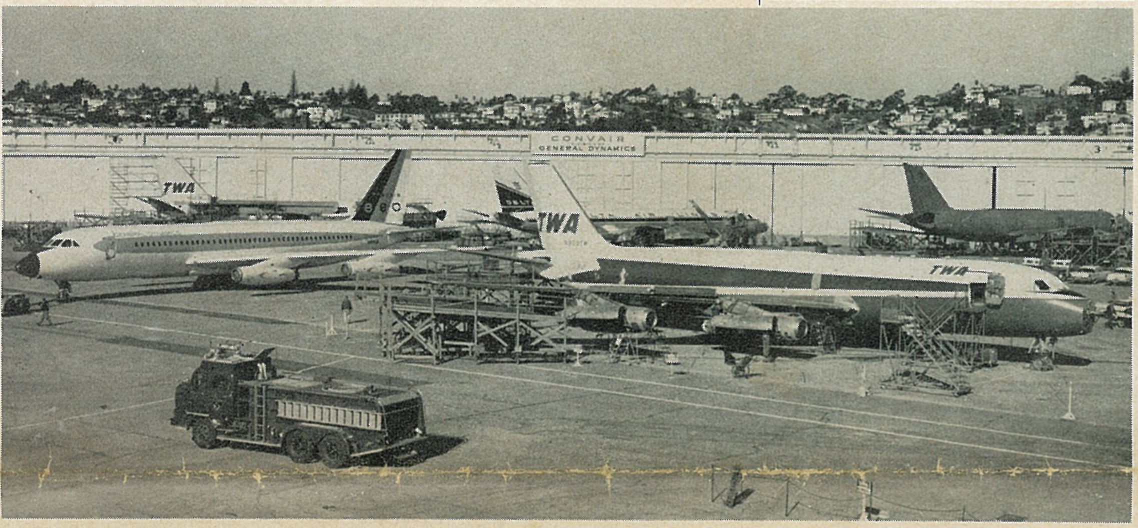
31st 880 Nears Assembly Line

The 31st Convair 880 jet transport is due to go onto the assembly line soon and components of four more 880s are in subassembly at Convair SD.

Wings for Nos. 29, 30, and 31 and the first Convair 600 now are in the wing bucks in Bldg. 2, SD Plant 1. No. 28 wings are out of the Scotchweld oven and were ready to go into wing mate this week. Planes 22 through 27 are in fuselage and wing primary and Nos. 20 and 21 are in major mate, all in Bldg. 2.

All positions in Bldg. 3 are filled with Nos. 18 and 19 in major mate and Nos. 14, 15, 16, and 17 in final assembly.

Outside of Bldg. 3 receiving final installations before going to field operations are 9, 10, 11, 12, and 13. Planes 1, 3, 4, and 5 are in flight test. No. 2 is outside Bldg. 2 being modified after structural tests. Planes No. 6 and 8 are being held for further instructions. No. 7 is the first delivery plane for Delta Air Lines.



NEARING FLIGHT—Now in final stages of completion outside Bldg. 3, Plant 1, at Convair SD, as they come off assembly line, are transports bearing markings of customer airlines, TWA and Delta. At left is plane No. 1, familiar in Convair's white and gold color scheme. It made first 880 flight last January.

First Shift, Plant 2 Will Donate Blood

First-shift people at Convair San Diego Plant 2 will be asked to sign up after Feb. 15 to donate blood at the next bloodmobile visit.

Cards will be in the hands of Plant 2 supervisors on that date for sign-up of volunteers. The bloodmobile will be at the plant Feb. 25 in the south end of Bldg. 3 from 10 a.m. to 2 p.m.

Since this visit will be the first one to Convair SD in the last couple of months, a call is out for donors to replenish the blood credit for Convair San Diego people, said Ken Wulfemeyer of employee services.

Delta 880's Shakedown Lasts Over Three Hours

"One of the best first flights we've ever made," was the way W. B. Harwell, Convair SD chief of production flight, described the shakedown of the first Convair 880 jet transport for delivery to Delta Air Lines.

The all-white airliner, distinctive with Delta's blue and red striping and crown insignia, lifted from the Lindbergh Field runway at 1:05 p.m., Jan. 22, with Harwell at the controls. It stayed aloft, making run after run over the flight test area between San Diego and Catalina Island for three hours and 20 minutes before swooping in to land at 4:25.

The flight was an hour and 20 minutes longer than the originally-planned two-hour shakedown. "Everything was going so well," explained Harwell, "the flight was continued to make more exhaustive checks.

"The plane was in excellent condition. There were very few squawks and none at all involving flight safety."

In praising the efforts of everyone responsible for the Delta Air Lines plane, he said, "I can not say enough about the high caliber of work that made this plane the fine craft it is. It was a good job on the part of everyone—assembly, field operations, and inspection!"

Harwell's crew included two

(Continued on Page 2)

Sweetland Named Superintendent of Tool Engineering

O. W. Sweetland, who joined Convair in 1942 as a process engineer, has been appointed superintendent of tool engineering at Convair San Diego, reporting to W. P. Woods, chief tool engineer.



O. W. Sweetland

Other appointments within the tooling department were also announced by Conrad Kunze, assistant manager-operations at SD.

(Continued on Page 2)

PRESIDENT'S AWARD TO HIGHLIGHT FEB. 17 SD CLUB MEETING

Presentation of the 1959 President's Award is expected to be made at the Feb. 17 meeting of the Convair SD Management Club in the Caribbean Room of El Cortez Hotel.

Convair President Jack Naish is scheduled to confer the award on an individual whose identity will not be revealed until the meeting. (In the running are 20 Convair SD CIP submitters, each with more than $25,000 in savings.)

Main speaker of the evening, which starts with social hour at 5:30 p.m., is Fred Smith of the National Management Association who will discuss "Management Motivation."

The meeting is sponsored by controller's departments. Menu will feature roast sirloin of steak; music will be Dixieland style, played by Bart Hazlett's Honeybucket Band. Management Club members can purchase tickets, for $2.25, at usual departmental outlets.

Engine Overhaul Times Extended For Jet 880

Overhaul times on the General Electric CJ-805-3 engine used to power Convair jet transports have been extended by Federal Aviation Agency approval.

TWA and Delta Airlines recently received the nod from FAA for sectionalized overhaul which will reduce cost of overhaul and inspection for airlines flying the 880.

The new policy permits overhaul of the engine's compressor section every 1,600 hours and the combustion section every 900 hours instead of the usual 1,000-hour time formerly required for all sections of an engine. Now, only those sections of the engine needing overhaul will have to be worked on at any given time.

General Electric officials estimate that overhaul costs per engine hours will be cut approximately 20 per cent for airlines using the 880.

Accelerated service tests conducted by General Electric at Edwards AFB with the CJ-805-3 engine on the RB-66 test plane provided data used as a basis for establishing the new regulations. The same type of test program is planned for the GE aft fan engine to be used on the Convair 600.



JOINT OCCUPANCY—Bldg. 3 at Plant 2 now hums with joint efforts of Astronautics and San Diego operations. Along left hand side of photo are Astro's support supplies, plus offices barely visible along center of mezzanine. On right are San Diego teams assembling electrical harnesses for F-106A interceptor.



MUG AND MACS—Jim Terrien, Dept. 91-0 (center), won Mug of Month at Management Club meeting Jan. 20. Also presented were MacSave-it awards for November and December. Winning the CIP trophies were C. W. Clark, Dept. 140 (on left), and James E. McCann (Dept. 98-6).

SD Registration Opens For New Beginner Charm School Course

Registration is open for a new beginning charm school course to be held this spring under CRA sponsorship for Convair SD women, wives, and daughters.

Martha Woodberry, CRA commissioner of women's activities, said that the course will start March 2 and will be held each Wednesday evening, 7-9 p.m., in the House of Hospitality, Balboa Park, for six weeks.

Fee of $8.50 per person is the only charge for the entire course and must be paid at time of registration. CRA subsidizes the course for Convair SD women.

Edith Antelline, SD charm school director, will instruct in fundamentals of good grooming, diet and nutrition, figure analysis, posture, business and social etiquette, make-up and hair styling, and basic wardrobe instruction.

Applications may be turned in at employee services, either Plant 1 or 2; Rose Canyon, office of Virginia Cannon, ext. 2125; Fordham St., office of Bessie Cooper, ext. 100.

As classes are limited to 50 students, registrations will be accepted on a first-come, first-served basis. After this course is filled, names will be placed on a waiting list for the next charm school.

Employee Services Sell JA Products

Bacon fryers, produced by a Convair SD Junior Achievement Company, are now on sale for 70¢ and 80¢ at employee services, Plants 1 and 2.

The fryers, perforated plates, keep bacon straight without turning while frying. They are available in three sizes: two 7½-inch models (square and round shapes), as well as a square 9-inch fryer.

They are produced by the Multi Products Co., a JA group sponsored by the Convair SD Management Club.

Unico, a second JA group, is making leather coasters (priced at six for $1) which will be available through employee services within the near future.



FRYERS—Beverly Thompson (left) and Lois Woline of employee services take good look at bacon fryers manufactured by a Convair SD Management Club-sponsored Junior Achievement Company. The fryers keep bacon straight while frying, are on sale at SD employee services, Plants 1 and 2.

★ Convairiety ★

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Astronautics Editorial Offices, Bldg. 8, Astro site, ext. 3322. Staff: Bryan Weickersheimmer, news editor; Alyce Martin. News contacts: AFMTC, Bobbie Waddell, ext. 3038; Warren AFB, Bill Jack, ext. 7-2254.

FW Editorial Offices, Col. 73C, ext. 2961. Mailing address: Convairiety, Convair, Fort Worth, Texas. Telephone PErshing 8-7311. Staff: Dave Lewis, news editor; Susan Bagby, Mary Beck.

Pomona Editorial Offices, Room K-222, Bldg. 2, ext. 6226, mail zone 3-8. Staff: James Combs Jr., news editor; Dorothy Keller.

Antelope Valley Editorial Office, Room 103, Bldg. 301 B, Palmdale, ext. 337. Staff: Richard L. Millett.

National Engineers' Week Will Be Observed Feb. 21-28

National Engineers' Week, which annually calls attention to the contribution of engineers to community life and progress, will be held Feb. 21 through 28 in San Diego.

Convair men are taking an active part. R. R. Hoover, assistant chief engineer, Convair San Diego, is a vice chairman of the event and J. A. Lederer, Convair SD manufacturing development, is assisting the executive secretary. Charles T. Newton, manager of communication for Astronautics, is a member of the executive committee.

The week is sponsored by a committee representing more than 30 engineering and professional societies in the county. The societies are planning special meetings during the period, stores will feature engineering displays, and an exhibit of general interest will be held in Balboa Park. Seminars at San Diego State College will feature engineering speakers and a student-teacher dinner will be held at University of San Diego.

Delta Shakedown Over Three Hrs.

(Continued from Page 1)

co-pilots, Don Germeraad, chief engineering test pilot who evaluated flight characteristics of the plane from a flight engineering standpoint, and L. C. Brandvig. Flight engineers were L. Knudsen and K. J. Rogers. V. V. Thomason was flight electronics engineer.

A. P. Wilson took over as captain of the plane on its second flight Tuesday of last week when the plane was kept up for three and a half hours of intensive testing.

Delta Air Lines was to take actual delivery of its first 880 following production flight tests, FAA conformity inspection, and customer acceptance flights.

During the next week or so Delta pilots will be checked out in the first Delta plane by Wilson and Knudsen. The two Convair production flight pilots also will accompany the plane to Delta's headquarters at Atlanta, Ga., to assist with pilot and flight engineer training during the next month.

Delta has purchased 10 Convair 880s.

Next airline to receive a Convair jet transport will be Trans World Airlines which expects to take delivery on two of its fleet some time this month.

Plane No. 5 is due to go into the engineering flight test program shortly for tests including TWA communications and navigation systems. No. 4 went into lay-up last week for modification to that configuration necessary for functional and reliability testing scheduled now for the latter part of February. During this portion of its test program the 880 will be flown over regular airline routes, particularly those of Delta.

Final Federal Aviation Agency certification is scheduled to be completed by the first of May.

Lachman to Direct Management Course For SD Engineers

Millard S. Lachman, Convair SD supervisor of management and engineering training, will direct an engineering management seminar under the University of California Extension this spring.

The engineering management seminar will be held each Thursday, 10 a.m.-1 p.m., Feb. 18 to April 21, at Sands Fireside Restaurant, 550 Kearny Mesa.

The 10-session course is one of two seminars scheduled for men and women in responsible management positions. The other, a general management seminar, will be taught in the evenings by Sheldon Campbell, supervisor of training, Rohr Aircraft Corp.

Robert F. Smith, assistant to Convair's vice president-administration, will keynote the last session April 21 on "Making Plans Succeed."

Enrollments are being accepted at the University Extension office, 1221 Fourth Ave.

'Test-Tactical' Job Awarded

(Continued from Page 1)

tions center on Lindbergh Field and prepared for flight to Palmdale. There the electronic systems will be installed and the aircraft will receive their production and acceptance check flights.

156 Linksmen Enter Sweeps

One of the largest CRA golf turnouts in months assaulted Circle R Jan. 16-17 and combated frost-bitten greens that delayed starting times two hours on both days, Ken Wulfemeyer, commissioner, reports.

Golfers entered in the sweeps totaled 156. Merchandise awards went to first, second, and third place winners in both low gross and low net divisions in three flights.

First flight low gross winners and scores: Bill Glithero (Dept. 292), 75; Wayne Hines (Dept. 180), 75; Bob Dodson (Dept. 31), 76.

First flight low net: Ron Hinricks (Dept. 14-1), 67; Neil Brown (Dept. 401), 67; Dick Ramsdale (Dept. 267), 70.

Second flight low gross: Gene Polpetter (Dept. 31), 82; Frank Kelly (Dept. 6), 83; George Hasti (Dept. 180-0), 85; Al Driver (Dept. 31), 85.

Second flight low net: Frank Marcelle (Dept. 401), 68; Gerry Dix (Dept. 292), 70; Bill Clifford (Dept. 400), 70.

Third flight low gross: Curtis Tanner (Dept. 6), 83; Lin Richardson (Dept. 401), 87; Harold Leoncini (Dept. 401), 88.

Third flight low net: Everett Brogan (Dept. 292-5), 64; Frank Ross (Dept. 230), 64; and L. M. Harper (Dept. 3), 68.

Samaritans Set Safety Mark

Convair planes, C-131 "Samaritans," flying with the First Aeromedical Transport Group (MATS) has completed its seventh year of service without injury to patients or crews.

During 1959, 1st AMTG, under command of Col. L. B. Matthews with headquarters at Brooks AFB, Texas, flew 45,800 hours to pile up another accident-free year for its unbroken record.

Since the group was activated on Feb. 1, 1953, more than 280,000 hours have been flown without injuries to patients or crews of the "flying hospitals."

During the seven years, thousands of landings and takeoffs were made without incident at more than 600 air fields, many with limited facilities, others in the nation's most congested flying areas, and in all kinds of weather.

Cost Reduction Honor Roll

Installed during the last two weeks:



David S. Arnott's (Dept. 188) CIP will save $4,891 a year.



Douglas A. Wight's (Dept. 138) ES will save $1,646 a year.

Sweetland Made Superintendent

(Continued from Page 1)

A. M. Van Horne was named general supervisor, production planning, work control and tool control. He will report to Sweetland.

Two appointments in a newly-created tool project engineering section include placement of L. F. Stabenau as supervisor-tool liaison, and G. F. Lacy, supervisor-tool projects. A section head reporting to Woods will be announced in the near future.

Convair SD's new superintendent of tool engineering moved into tooling work as a planner in 1943 and has held a number of positions on the supervisory level since that time. Sweetland became a tooling general supervisor in 1953, was named superintendent of tool planning and design at Convair SD's Plant 2 in 1955.

★ ★ ★

V. F. Cernuto has been appointed manufacturing manager of Convair SD's supersonic seat program, reporting to Conrad Kunze, assistant manager-operations.

Cernuto will be responsible for coordinating all aspects of the program, see to it that proof seats are available on schedule.

With Convair since 1934, Cernuto was appointed chief of manufacturing control at Convair SD's Plant 2 in 1953. He has held various jobs in production and manufacturing control as well as master planning assignments.

Bob McCracken New President Of Coin Club

Convair SD Coin Club members elected Robert McCracken (Dept. 192) president at a meeting this month.

Other officers filling out the new slate are Al Baber (Dept. 8), vice president; Lloyd Miller (Dept. 400), treasurer; and William Atkins (Dept. 400), secretary.

Joe Miller, club spokesman, said members voted a new bylaw change into effect that will require a $1 membership fee to be posted that will cover club activities for a one-year period.

In the future, only members in good standing will be permitted to participate in club activities such as coin auctions, swap nights, etc. A monthly card announcing meeting dates and programs also will be sent to paid-up members.

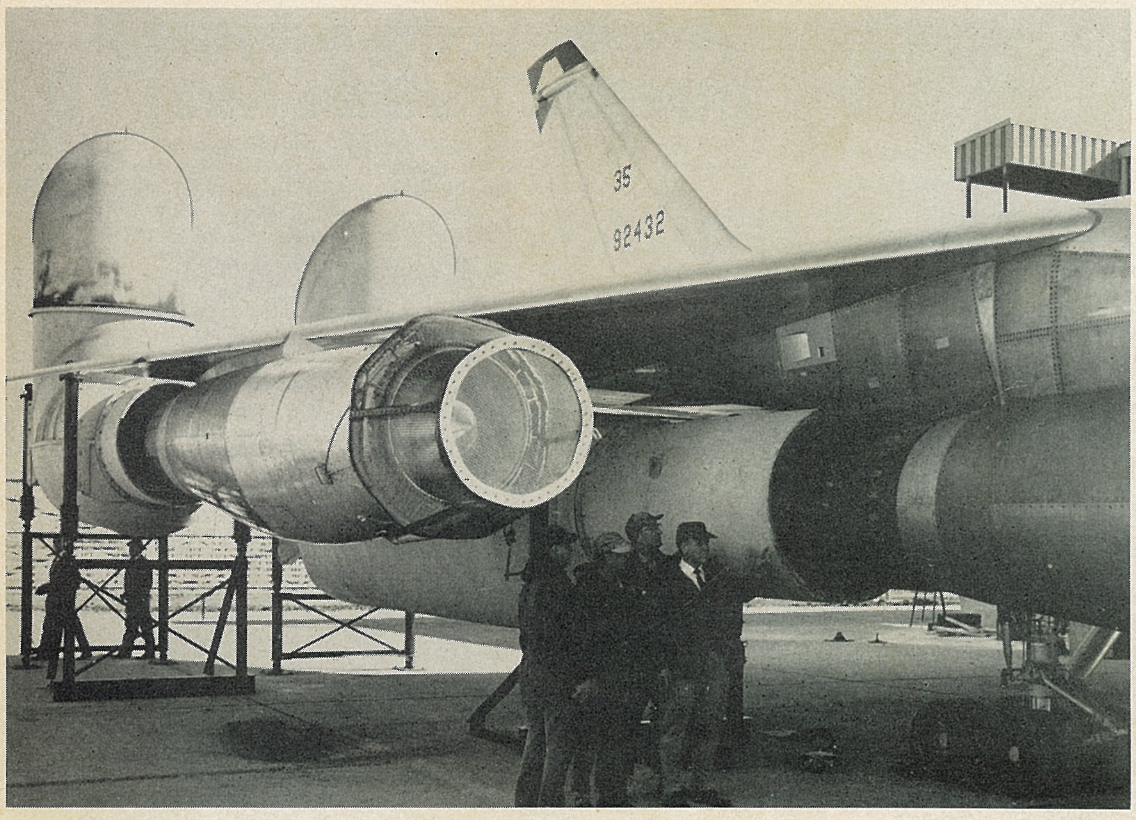
Miller added that coin collectors wishing to purchase 1959 mint sets can order them for $2.40 by drawing checks to U. S. Mint, Cash Division, Washington 25, D. C. Each set contains two of the following coins (one from each of the mints now operating): half-dollar, quarter, nickel, dime and cent. Sets previously had to be ordered in quantities of four coins each, Miller said.

Next Coin Club meeting will be held Feb. 16 at 8 p.m. in the Hearing Aid Society Bldg., 3843 Herbert St.

Fishing Club Elects Committee Members

A. F. Williams was elected chairman of the Convair SD Fishing Club and new committee members were appointed at a meeting last month.

Heading committees are: Joe Sopko, entertainment; Don Bryson, boating; G. G. Grantham, E. E. McDaniel, W. C. Bowen, contests; L. R. Davidson, G. L. Hampton, retired employees; Mrs. R. W. Menzie, Mrs. G. G. Grantham, refreshments; Grantham, E. E. McDaniel, delegates to San Diego County Wildlife Federation; Bowen, Williams, alternate delegates.



SILENCERS—B-58 sound suppressors, slated to go into service between production run stations in spring, are being tried on for size at Convair Fort Worth.

More F-102As in Europe, Join 496th FIS at Hahn

Second contingent of Convair F-102As to land in Europe are now based at Hahn Air Base, Germany.

F-102s assigned to the 496th Fighter-Interceptor Squadron were unloaded at St. Nazaire, France, and flown to Hahn in mid-December. Complete conversion of the squadron was to take a couple of months.

Lt. Col. Robert Dow, commanding officer of the 496th FIS, was enthusiastic about the all-weather jet interceptor after his first flight in a TF-102 after their arrival there Dec. 9.

The Convair-built planes made their first appearance in Europe just a year ago when F-102As were assigned to the 525th FIS of USAFE's 86th Fighter Wing at Bitburg Air Base, Germany. They were formally introduced on the continent in an air show there last February.

Representing Convair San Diego at Hahn are field service representatives, J. E. Dodge and J. P. Mathis, in support of airframe, and O. B. Johnson, assigned to the 86th Fighter Wing in support of ground power equipment.

Pilots of the newly-activated F-102 squadron soon will begin advanced training in the weapon system at Wheelus Air Base near Tripoli on the North African continent. Planes and pilots of the 525th FIS recently completed the same training which has been maintained since last summer on a rotational basis. Four planes at a time were sent to the USAFE Weapons Center base.

Dodge, Johnson and Norman Picard of Convair SD are at Wheelus to support the F-102 training program. Picard is assigned to logistics support.



POST FLIGHT—Lt. Col. Robert Dow, 496th FIS commander, lights cigarette after first flight in TF-102 in Germany. With him are D. E. Thompson of Hughes Aircraft, J. E. Dodge and J. P. Mathis of Convair, Capt. Claude F. Galloway, maintenance officer.

Suppressors to Quiet B-58 Jet Engine Roar

The roar of B-58 jet engines during test runs at Convair FW this spring will be muffled by sound suppressors.

"Sounds caused by B-58 engines being tested at full military power, or with afterburner on, will be reduced by as much as 90 per cent in the noisiest frequency range," according to Donald G. Pray, Convair FW acoustical expert.

He added that this would virtually eliminate the "annoyance" factor for Fort Worth citizens during engine runs.

Pilot model suppressors were checked out Jan. 15.

Sound suppressors will be used for all B-58 engine runs over 85 revolutions per minute.

Each station will have two inboard and two outboard suppressors, adaptable to the Hustler's four nacelles. Exhaust suppressors fit at the rear.

"Four inlet screens will be placed over the front section of each nacelle," he said. "This helps eliminate the powerful 'whining' noise created by jet engine compressors.

"The suppressors should cut down noise level appreciably for people who work in close proximity to the Hustler," Pray added.

A larger suppressor is also tentatively tagged for the engine test run stand in March.

Built by Koppers company in Baltimore, Maryland, the suppressors are air cooled.

Bolt, Beranek and Newman, acoustical consultants from Cambridge, Mass., will make the evaluation.

CONVAIR DAUGHTER GETS WHITE HOUSE BID TO CONFERENCE

Patricia Kling, 19-year-old Convair SD daughter, is one of only ten in the United States to receive a personal invitation from President Eisenhower to attend a White House Conference on Children and Youth next month.

The event is in conjunction with the golden anniversary of the Youth Forum to be held in Washington, D. C., March 27 through April 2.

Patricia (daughter of E. F. Kling, Dept. 6) was selected because of her work with the Grossmont Hospital Junior Auxiliary, a group composed of young women over 16 years of age. The Convair daughter is the only delegate west of the Mississippi to receive a personal invitation.

F-106s From Palmdale Arrive In Indiana to Join 319th FIS

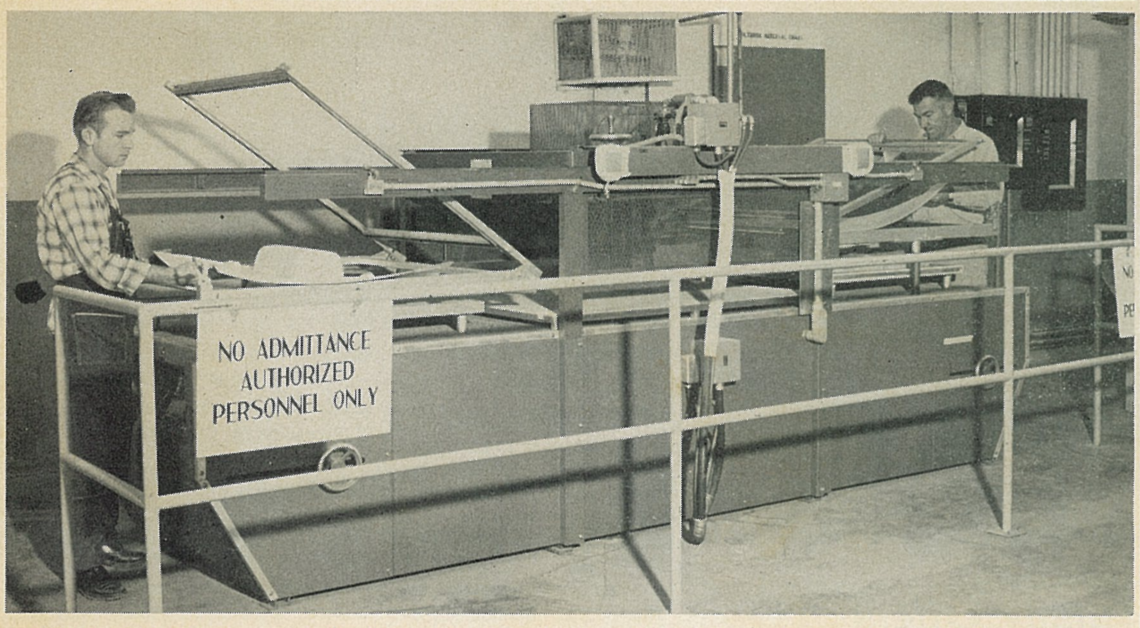
Another Air Force F-106 squadron has been activated, the seventh within a year. Convair-built jet interceptors arrived at Bunker Hill AFB, Peru, Ind., the latter part of January.

F-106s joining the 319th Fighter-Interceptor Squadron, under command of Lt. Col. Van Dusen, were all newly flight tested craft from Palmdale, Calif.

Convair San Diego men stationed at Bunker Hill AFB to support the F-106s are Carl Taylor and Ray Schaper, field service representatives, and J. K. Underwood of SD service parts for logistics support.

Since last spring the following squadrons have been transitioned to F-106s: 539th FIS, McGuire AFB, N.J.; 95th FIS, Andrews AFB, near Washington, D.C.; 498th FIS, Geiger Field, Spokane, Wash.; 456th FIS, Castle AFB, Calif.; 4750th Test Squadron at MacDill AFB, Tampa, Fla.; 49th FIS, Loring AFB, Me. So far, the 498th FIS at Geiger Field is the only operational squadron.

Next Air Force squadron slated to receive F-106s is the 32nd Fighter Group at Minot AFB, N.D., which is due to be activated this month. Also, according to an announcement by Maj. Gen. Von R. Shores, 25th Air Division (SAGE) commander, F-106s will be assigned to the 325th Fighter Wing at McChord Air Force Base, Tacoma, Wash., some time this spring.



NEAT SHAPES—Leonard Harris (at left) and James Richardson, both of Dept. 129, form plastic parts for Convair 880 interiors on double-ender vacuum forming machine in Bldg. 3, Plant 1. Parts, made of Boltaron, house such items as speakers, convenience pods.

Plant 1 Enters New Manufacturing Field, Plastic Parts For 880 Trim

Convair San Diego is entering a new production field — the forming of the multitude of parts that make up the interior trim of Convair jet transports.

Most of the nearly 200 different shapes of plastic which are used in the interior of an 880, and will be needed for the Convair 600, to house installations and cover structure will be formed at Plant 1 instead of being subcontracted to outside vendors. The parts are of every conceivable size and shape; for instance, one shape is designed for the outer cover of the window frame and another for the inner cover. There are 88 windows in each 880 and 96 in every 600. Other parts are needed to house oxygen boxes, speakers, convenience pods, among a few items, as well as to panel sides, ceiling and partitions.

A thorough investigation last fall showed that bringing the work into the plant would save the company money and time. Parts which are urgently needed can be produced within a matter of days, explained G. A. Grossaint, tooling general supervisor, who was one of the group instrumental in Convair SD's taking on the new production job.

Tooling department designed and built its own vacuum-forming machine to prove that the task would be feasible. Plant engineering assisted in the wiring diagram for the battery of heat lamps and timing device which provides the proper temperature for the operation.

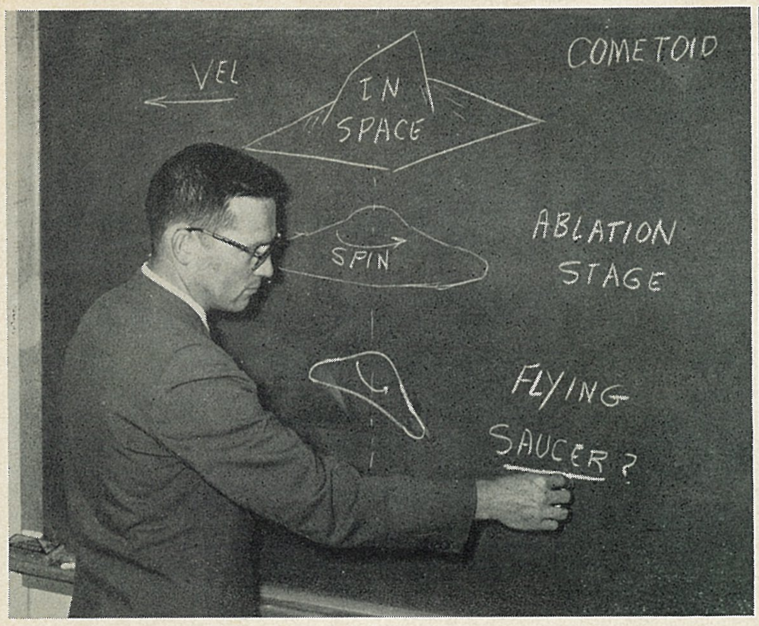
Shaping of parts, all of Boltaron, a thermoplastic material which can be formed under heat and will remain rigid at normal temperatures, now is being done on the vacuum-forming machine in plastics production (Dept. 129) under direction of R. F. Stull, assistant foreman.

Eventually, three machines will be in use, said R. B. Miller, manufacturing engineer for the plastics department. Besides the Convair-built machine which will handle a 30x32-inch sheet, and the commercial machine now in use, a third machine will be built within Convair SD to form large parts such as the 36x72-inch housing to cover belt frames.

It takes about 10 minutes to shape a part. As many as six to eight of the smaller parts can be made at a time.



F-102 AWARD—Lt. Gen. Joseph Atkinson, ADC commander (left), presents coveted Flying Safety Award to Lt. Col. Ralph L. Brown, 87th FIS commander, Lockbourne AFB, Ohio, for accident-free record of F-102As. Unit flew 9,156 accident-free hours in jet aircraft during 18-month period, Jan. 1, 1958 to June 30, 1959. C. H. Greenfield is Convair representative there.



A THEORY—Astro's Donald Robey uses blackboard to illustrate his theory flying saucers are actually chunks of ice. At top is "iceberg" prior to entering earth's atmosphere. In center, burning away of edges has begun with "flying saucer" shape resulting.

Exploding Comets

Flying Saucer Theory Involves Frozen Matter From Space

"Flying saucers" and other phenomena known generally as "unidentified flying objects" (UFOs) might well be chunks of frozen matter from space.

Donald H. Robey, Astronautics physicist, has a theory to this effect based on sound scientific findings. Last year he was asked to report before the American Meteorological Society. His article, "A Theory on Flying Saucers," has been printed by the Saturday Review and the Air Force Association's Air Force and Space Digest magazine.

Robey's theory begins with comets which he, like many other scientists, believes are extremely cold conglomerates of ices and dusts. The ices consist of unknown compounds and radicals of oxygen, nitrogen, hydrogen and carbon so cold they are frozen into a solid mass. This is the nucleus of the comet.

Comets orbit the sun (as the earth does) but are under the control of Jupiter, largest of the planets. On rare occasions, probably once or twice a century, a comet will move so close to Jupiter it is literally torn apart, exploding into millions of pieces. These pieces may range from a few feet to hundreds of feet across.

"I call these fragments cometoids," Robey said. "They are too small to be comets, yet large enough to remain intact in space."

If conditions are right, some of these exploding pieces may be hurled into the earth's orbit. Once or twice each year the earth is in a position to "capture" these cometoids, drawing them in through the pull of gravity.

Drawn toward the earth, a cometoid would meet ever-increasing heat, causing some of its frozen gases to melt, Robey reasons. Because of the extreme cold of other parts, some of the melted gases would refreeze. In time only a thin-shelled spheroid filled with hot gases would remain. Some gases would escape, creating jet-like exhausts. Light reflected from such an object would make it appear to glow.

And a cometoid subjected to the earth's surface heat would last only a short while with the gases melting and escaping and the remainder turning into fine dust.

IAS Sponsoring Science, Space Lecture Series

A Tuesday and Thursday evening series of lectures devoted to space and science subjects will be sponsored by the San Diego section of the Institute of Aeronautical Sciences during February and March.

Reservations are not required and guests are welcome to attend. Subject matter is unclassified. Sessions start at 7:30 p.m. in the IAS Building, 3380 Harbor Drive.

Dates, subjects and speakers are as follows:

Feb. 11: "Chemical Kinetics and Reaction Rates," Orlo Meyers (Astro); Feb. 16: "Erosion of Satellites and Meteors," Dr. D. B. Medved (Convair SD); Feb. 25: "Economic Feasibility of Recoverable Boosters — Air-breathing and Rocket," P. R. Shipps (Convair SD) and David Jones (Astro).

March 1: "Vehicles for Interplanetary Flight," F. A. Ford (Astro); March 10: "Atom Movements in Solids," Dr. Allan Schoen (Astro); March 15: "The Physics of Molecular Electronics," Dr. M. Cutler (General Atomic); March 24: "Materials for Ablating Heat Shields," (speaker to be announced); March 29: "Solar Flare Radiation Hazard to Manned Space Flight," Donald Robey (Astro).

K. J. Bossart Again Honored For Atlas

Karel J. Bossart, Astronautics technical director, last week received the Sylvanus Albert Redd award for contributing to the development of the Atlas.

Presentation was made through the Institute for Aeronautical Sciences in a meeting in New York City.

'Stretcher' Creates Honeycomb From 'Solid' Aluminum Piece

Cost-cutting is often accompanied by "stretching," in a figurative sense. But engineers at Convair Fort Worth are literally stretching aluminum core for B-58 panels—and cutting costs at the same time.

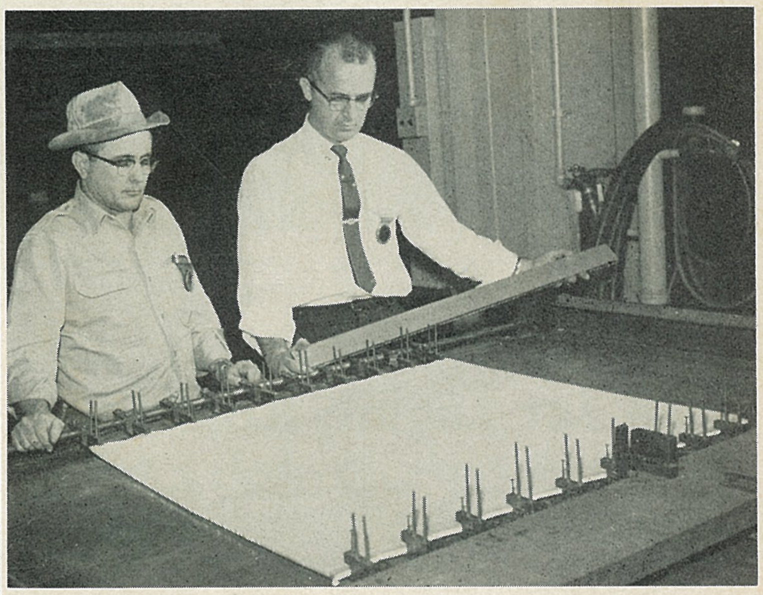
The "honeycomb" core is shipped from the supplier in California in a compressed form, and is stretched out in the Fort Worth plant. Thus shipping is easier and cheaper.

The stretcher is a machine built several years ago in FW. It clamps to both ends of the metal and is capable of expanding two inches of the compressed and solid-looking aluminum to as much as 96 inches of the hexagonally-perforated honeycomb.

From a big sheet of already-stretched honeycomb, pieces are cut to required sizes and shapes. The depth of pieces is determined by pre-stretch cutting.

Honeycomb is used to satisfy material requirements in parts of the B-58 which may be subject to excess stress or heat. It is used in the interior of panels, and a metal skin is bonded over it in finishing.

According to R. D. Shackelford, Dept. 33, the stretching machine is a rarity.



STRE-E-E-TCH—Stretching out aluminum "honeycomb" is machine operated by C. O. Goains, Dept. 33 at Convair FW. C. T. Jahnke, Dept. 33 assistant foreman, holds piece of aluminum identical with one on machine table before it underwent stretching process.

Score of Convair Men Doubling As Professors For California U.

More than two dozen Convair SD and Astronautics men, all experts in their fields, will be on the faculty of the University of California Extension for the spring semester which starts next week.

Convair San Diego men instructing classes will be Maxwell Frank, service publications; Alex E. S. Green, chief of physics; Lester Haar, senior design engineer; Robert M. Kuhns, flight test engineer; M. S. Lachman, educational services; David B. Medved, design specialist; James P. Mitchell, senior research engineer; Robert Penn, senior research engineer; Richard K. Walter, design specialist; Herbert T. Wexler, engineering staff specialist; Kon Worth, structures engineer; Hideo N. Yoshihara, aerodynamics.

Representing Astronautics will be James M. Bowyer Jr., design specialist; Carl G. Erickson, senior electronics engineer; Raymond A. Ezekiel, management development specialist; James Fithian, electronics engineer; Edward M. Getzoff, mechanical engineer; Ernest A. Hamilton, electronics engineer; James F. Haskins, senior research engineer; K. Leon Montgomery, research engineer; W. Duane Montgomery, research engineer; N. Thomas Norden, management development specialist; Patrick J. O'Leary, design specialist; Conway C. Sams, research engineer; Philip J. Swanson, group engineer; Bruno F. W. Witte, senior research engineer.

Other General Dynamics Corporation personnel who will be doubling as instructors are James H. Alexander, assistant chief of mathematics and computing, and Ward C. Sangren, chief of mathematics and computing, both of General Atomic; and William C. Slagle, senior electronics engineer, and Herman W. Volberg, technical specialist, both of Stromberg-Carlson.

Registration for the spring term is now open at the 1221 Fourth Ave. office in San Diego.

Cal. Optical Society Tours SD Plant 1

Members and wives of the Optical Society of Southern California toured Convair San Diego Plant 1 on their Jan. 23 field trip to San Diego.

Romuald Anthony, Convair SD design specialist and program chairman of the organization, conducted a group of 40 through Convair's high speed wind tunnel and 880 mockup.



HIT PARADE—Jack Morrow, Convair FW spares general supervisor, is flanked by song writing "team"—left to right, daughters Linda and Janie, and wife Joan—which helps him turn out pop records.

Pop Tune Writer's Family Offers Both Ideas and Sound Criticism

Jack Morrow, Convair FW spares general supervisor, realized a life-long ambition a couple of years ago when Sonny James' recording of "Young Love" topped the Hit Parade and reached the two-million mark in sales.

It was amateur songwriter Morrow's first big hit. Not "Young Love," but the reverse side of the platter—"You're the Reason."

"Actually," Morrow said, "Sonny agreed to cut 'Young Love' and 'You're the Reason' on the same disc. He felt one of the tunes would make the grade, but wasn't certain which one." Naturally, Morrow was pleased to be on the reverse side of a record that sold over two million copies on the Capitol label alone.

Off and on, Morrow wrote songs while in Tulsa High, Tulsa University, and the U. S. Air Force.

Before "You're the Reason," he had moderate success with such tunes as "Ocean of Tears," "Pigtails and Ribbons," "Careless with My Heart," and "Percolator."

Lately, Morrow has been working with Artie Glenn, former Convair employee who wrote "Crying in the Chapel," in publishing such novelties as "Teen Age Chant," and "Hoodoo Voodoo."

Morrow modestly credits his family—wife Joan and daughters Linda, 14, and Janie, 10—for his successes to date.

"Joan is the idea 'man' of the group," Morrow admits. "She'll usually come up with the idea for the song, and the title. Linda and Janie are the critics. And they're good ones because they're hep to popular musical trends."

But the labor of fitting lyrics to tune, or vice versa, belongs to Morrow. Incidentally, the usual dilemma of which comes first, the music or the lyrics, is no problem.

"The melody usually comes easy to me," he said. "After that, it's simply a matter of adjusting the lyrics to fit."

TWO ATLAS MISSILES FIRED ON SAME DAY, A CONTINENT APART

A continent apart, two Atlas missiles were fired successfully within hours of one another Jan. 26.

At 3:43 p.m. a Strategic Air Command crew headed by Capt. Russell Thresher, launch control officer, fired Atlas 6-D from Vandenberg AFB. It impacted some 5,000 miles over the Pacific in the vicinity of Wake Island.

At 6:31 p.m. (PST) missile 44-D was launched by an Astronautics crew from Complex 13 at the Air Force Missile Test Center in Florida. It carried aloft a new nose cone and data capsule. Impact was within a target area in the South Atlantic.

The shot over the Atlantic Missile Range marked the 17th straight successful flight for the Atlas from that site.

The Vandenberg AFB firing was the second launch of an Atlas from that site. On Sept. 9 an Atlas was fired from the West Coast for the first time.



"Read me that part again where if I don't answer soon, I'll lose my seat in th' car pool!"

NEWS FROM OTHER DYNAMICS DIVISIONS

General Dynamics Corporation, created in April, 1952, as successor to Electric Boat Company, is composed of seven divisions and a Canadian subsidiary, Canadair Limited, of Montreal, airframe builders. The divisions are:

Convair, head offices at San Diego, Calif., aircraft, missiles, and space systems.

Electric Boat of Groton, Conn., submarines.

Stromberg-Carlson, of Rochester, N. Y., telecommunications, electronic equipment.

Liquid Carbonic of Chicago, Ill., carbon dioxide producer, industrial and medical gases.

General Atomic of San Diego, Calif., nuclear research, development, production.

Electro Dynamic of Bayonne, N. J., electric motors, generators.

Material Service Division, Chicago, Ill., building materials, concrete products and coal.

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Jet Trainer Built by Canadair Is Side-by-Side Two-Seater

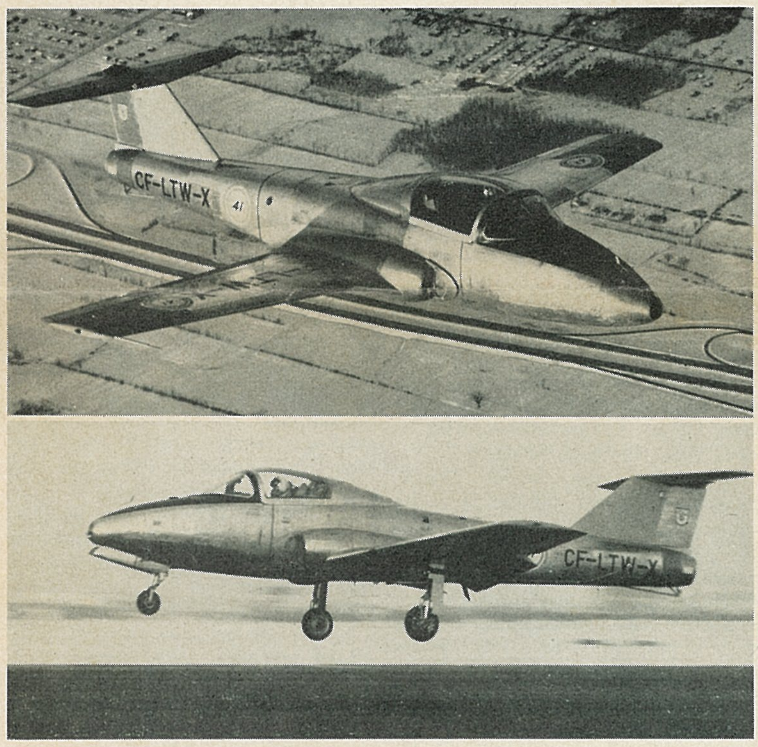
MONTREAL — Canadair last month completed a successful initial flight of its CL-41 primary and basic jet trainer, from the company's plant at nearby Cartierville airport.

This was the third new Canadair airplane to fly within two months—the others were the CL-44 long-range freighter and the first production Canadair 540 medium-range airliner, both turboprop powered.

At the controls was Ian MacTavish, Canadair's assistant chief pilot in engineering flight test. After a short taxi run, MacTavish lifted the all-purpose trainer off the runway and within minutes was leveled off at 15,000 feet where he put it through a series of maneuvers in this first 70-minute test of its capabilities.

The CL-41, a side-by-side two-seater, is the first entirely original design by Canadair. Two prototypes have been built as a private venture. Foreign air attaches visiting the Montreal plant in recent months have shown extreme interest in the trainer, which is of a type suited for building under license.

Side-by-side seating was adopted in the interests of greater instructor efficiency and in accordance with the indicated requirements of the Royal Canadian Air Force and the United States Air Force. This seating arrangement is also preferred for training airline pilots.



FIRST HOP—Canadair's CL-41, jet trainer designed to carry student from first flight to ability to fly high-speed jets, is shown on shakedown. Maximum ceiling will be 44,500, maximum speed 475.

Electric Alternating Current Produced by Heat Conversion

SAN DIEGO — The first successful conversion of heat directly into alternating current electricity in significant amounts, without use of rotating machinery or DC-AC converter, was reported last month by scientists of General Atomic Division.

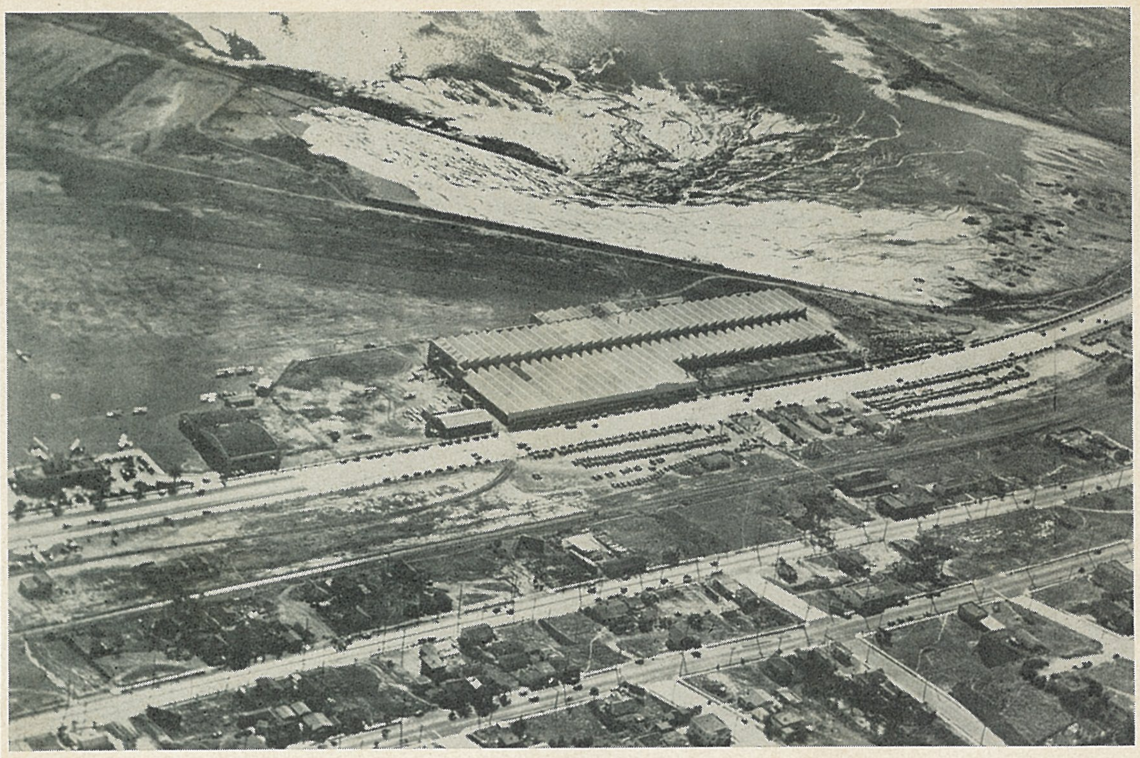
Prior to the announcement, direct current had been obtained from experimental thermoelectric devices in several of the country's research laboratories, but scientists had been unable to produce an appreciable quantity of alternating current. The utility companies require alternating current for home and most industrial uses.

Scientists at General Atomic's John Jay Hopkins Laboratory for Pure and Applied Science here used a high temperature cesium cell converter in their successful experiments which produced sufficient alternating current to illuminate a series of small light bulbs. The cesium cell is one of several direct conversion methods under study at General Atomic.

The steadily expanding General Dynamics program of thermoelectric research, which has been under way since 1957, is partially supported by nine investor-owned utility companies of the western states. Eight of the companies are members of the Rocky Mountain-Pacific Nuclear Research Group. The other is the San Diego Gas and Electric Company.



ON DOTTED LINE—Frank Pace Jr., chairman of General Dynamics board, signs lease on former Time & Life Building in New York City, which will be renamed General Dynamics Building. At right is Laurance S. Rockefeller, chairman of Rockefeller Center.



NEW HOME AT SD—Adjoining Lindbergh Field (as it looked in 1935) was Consolidated Aircraft's new home, following move from Buffalo. Note proximity to San Diego Bay in those days.

Flight From Snow and Ice Brought Consolidated to San Diego in 1935

(This is the 27th installment in a continuing history of Convair Division of General Dynamics Corporation. It deals with Consolidated's move to San Diego 25 years ago.)

Starting about 1930 Reuben Fleet of Consolidated Aircraft began a survey of the country for a factory site in a city unhampered by snow and ice, having public airport and seaplane facilities, and offering an adequate labor supply. Plans for a move had begun to jell by the time the directors met May 29, 1933, which happened to be the company's 10th birthday.

The minutes show that the board heard site proposals from the San Diego Harbor Commission and others.

"Every month brought more and more arguments from San Diego," Fleet recalled later. Often the spokesman was T. C. Macaulay, Chamber of Commerce manager, who had been an instructor at nearby North Island when Fleet learned to fly there in 1917.

Finally, Consolidated entered into a conditional lease for certain tidelands which adjoined the San Diego Airport (Lindbergh Field) and the harbor. When a final decision to make the move was reached in 1934, the company employed a West Coast architect, L. B. Norman, to draw plans for a "continuous flow" plant incorporating the best features Fleet and other officers had found in modern aircraft facilities around the country. In December, 1934, directors authorized a call for construction bids, and applied for a $500,000 R.F.C. loan to help meet the expense (the loan was granted but never used).

The cross-country move was by far the largest made by a major aircraft company up until that time. Glenn L. Martin Co. changed sites in 1928-29, but only from Cleveland to Baltimore. After World War II, Curtiss was to abandon Buffalo for Cleveland, and the Texas weather would attract Chance Vought from Connecticut to Dallas, and Luscombe from New Jersey to Garland. But in the summer of 1935, it was a major undertaking to crate up 71 freight carloads (21 of them household goods) for cross-country shipment; and to pick key employees whose moving expenses would be paid. (Additional employees paid their own way on the promise of jobs at the new site.)

The move from Buffalo cost Consolidated several of its top executives, and resulted in the founding of a new company. Lawrence D. Bell, vice president and general manager, resigned and organized the Bell Aircraft Corp. Ray P. Whitman, assistant general manager, remained in Buffalo to become vice president and treasurer of the new firm. Robert J. Woods, project engineer, resigned to take a position as Bell's chief engineer.

The new firm of Bell Aircraft took over the former Consolidated plant and one of its first contracts was for fabrication of outer wing panels for a new flying boat Fleet was building in San Diego. Later the company went into production on aircraft of its own design — notably the P-39 Aircobra and P-63 Kingcobra fighters of World War II, and postwar Bell helicopters and experimental rocket ships.

By Land or by Sea?

Steamship Considered to Carry Consolidated Aircraft to Coast

According to Howard Golem, now Convair director of procurement, who in 1935 was Consolidated traffic manager, Reuben Fleet allocated $40,000 for the move from Buffalo to San Diego.

"That was a lot of money in those days," Golem recalled this week. "But even so, we used up a lot of pencils figuring out the cheapest means of transportation because the more we saved the more of our employees we could help financially in crossing the country."

Golem started to plan the move in January of 1935. He even considered chartering a sea-going freighter to carry the company's possessions via the St. Lawrence River to the Atlantic and through the Panama Canal.

"These alternate schemes were mainly to use as a lever on the railroads to grant us rates, which they ultimately did."

Shut-down of production for Consolidated was actually for only a brief period. Buffalo kept working up to Aug. 16 and work was resumed at San Diego soon after Labor Day. The contents of freight cars were made up in sequence to allow for orderly resumption of work, with the most important parts and machinery arriving first. Golem was among the last to leave Buffalo. He remembers sitting on a crate and pounding out a letter on the last Consolidated typewriter left at Buffalo. The letter was to Harvey Tafe, then of North American, who had inquired about the details of the Consolidated move, in anticipation of a North American shift to Inglewood. Tafe later joined Consolidated (in 1940) and now is Convair's director of foreign sales-military.

Meanwhile, a few Consolidated men preceded the mass migration. J. M. "Jack" Kline, now superintendent of fabrication at Astronautics, was one of the early ones. He was sent to the coast in May of 1935 as field service engineer, assigned to VP-7 and VP-9, flying Consolidated P2Y-3 flying boats from North Island.

C. T. Leigh, vice president and material supervisor, came west in April and directed early construction of the new plant and handled unloading at the west end of the line. Dave Fleet also was an early arrival. Carl Griebner, now of purchasing at SD's Rose Canyon, recalls that he drove Dave Fleet's new Ford to the coast when Dave elected to come by air.

"Of the whole bunch of us who were transferred, I doubt if there were more than three or four who had ever been to the west coast before," Griebner reminisced.

"When I started to drive from Buffalo, everyone advised me that I was going into wild country," Golem recalled. "They told me to carry extra water and fuel and once west of the Mississippi I wasn't to stop except in populated areas, because of bandits!"

There were six girls who transferred with the company from Buffalo to San Diego. Two are still with Convair. They are Jane Dunn and Lucille Metcalf, both currently at San Diego.



OFFICIALS—Among top men of Consolidated in fall of 1935 were these, from left: Ray Madison, I. M. Laddon, R. A. Miller, H. A. Sutton, Ralph Oversmith, Jim Kelley, George Newman, C. T. Leigh, C. A. Van Dusen, Capt. L. C. Hurd (Army acceptance officer), Ed Neff, B. W. Sheehan, Dave Fleet.

New Class Starts For SD Hoedowners

A new series of intermediate square dancing classes is now being held Monday evenings starting at 7:30 at the American Legion Hall, 4061 Fairmount Ave.

M. E. Scholz, CRA co-commissioner, encouraged any former members who were forced to drop out of classes in the past to again take part in the activity by attending the intermediate instruction.

Graduating into the intermediate group are 65 Hoedowners who recently completed the beginners' class.

Scholz said that almost 100 persons attended the CRA club's special "Old Timers" dance Jan. 23. Next club party night will be a "Sadie Hawkins" dance at 8 p.m. on Feb. 27 at the University Heights Community Center, 4044 Idaho St. Costumes will be optional.

Log Book Entries

Service Emblems

SAN DIEGO

Service emblems due during the period Feb. 1 through Feb. 15.

Thirty-five-year: Dept. 123, B. F. Kiegle.

Thirty-year: Dept. 31, A. J. Bergman.

Twenty-year: Dept. 6, L. F. Ballou Jr., H. W. Dvorak, J. G. Hawkins, J. T. Jackson, Glenn Karel; Dept. 7-60, A. E. Lyerla; Dept. 31, H. R. Lewis.

Dept. 90, F. N. Minter; Dept. 93-8, F. J. Johnson; Dept. 95-0, Lewis Grant; Dept. 115, Stanley Penziul; Dept. 129, M. E. Bryans; Dept. 144, J. R. Ernst; Dept. 160, J. T. Mitchell.

Dept. 197-9, G. A. Knauss; Dept. 400-1, H. L. Brady, J. G. Elston, F. H. Miller; Dept. 401, O. Q. Faucett, R. F. Greggs, Nelson Hodina.

Fifteen-year: Dept. 1-22, A. H. Wiggins; Dept. 6-51, F. N. Thudium; Dept. 7-40, Mildred B. Powell; Dept. 31, W. I. Gregory, C. A. Wilson; Dept. 123-0, P. W. Kincheloe; Dept. 148, Raymond Walsh; Dept. 232, W. L. Fissell.

Ten-year: Dept. 6, A. D. MacLellan, F. A. Stephenson, J. E. Whiston; Dept. 31, H. G. Bradley, A. C. Miller; Dept. 44-3, G. B. Emmons, Georgiana C. House.

Dept. 116, Ada P. Bullock; Dept. 148, J. A. Lape, Dept. 149, Oleta H. Raney; Dept. 192, Helen W. George, Dorothy G. Stanford; Dept. 204, Tom Garcia; Dept. 216, Adeline R. Carr.

Dept. 218, Edna S. Carter, Elsie S. Purcell; Dept. 230, O. H. Rosenboom; Dept. 267, H. P. Berliner; Dept. 280, Anna M. Lafaver.

Dept. 288-2, Sally K. Popp; Dept. 292, Eleanor F. Martin, Irene A. Trovaten; Dept. 401, R. I. Graham, H. R. Johnson, M. P. Scherl Jr., C. H. Strong.

Promotions

SAN DIEGO

Promotions to or within supervision effective Jan. 18:

Dept. 6, Engineering: To research group engineer, A. Van Duren.

Dept. 7, Electronics: To asst. foreman, C. E. Overhulser. To senior electronics group engineer, G. W. Wolfe.

Retirements

SAN DIEGO

ATWELL—Walter B., Dept. 180. Seniority date May 12, 1947, retirement effective Jan. 9, 1960.

GALLOWAY—Francis S., Dept. 31. Seniority date Feb. 6, 1952, retirement effective Jan. 12, 1960.

GILL—Floyd H., Dept. 15-6. Seniority date Feb. 1, 1943, retirement effective Jan. 8, 1960.

HILL—John N., Dept. 401. Seniority date Aug. 30, 1946, retirement effective Jan. 9, 1960.

KALTENBERGER—William A., Dept. 129. Seniority date Nov. 15, 1955, retirement effective Jan. 9, 1960.

MILLER—Roy A., Dept. 6. Seniority date June 28, 1926, retirement effective Jan. 8, 1960.

TUCKER—Harry F., Dept. 8. Seniority date Dec. 5, 1951, retirement effective Jan. 15, 1960.

YOUNGHUSBAND—Arthur P., Dept. 188-1. Seniority date Aug. 10, 1936, retirement effective Dec. 28, 1959.

Personals

SAN DIEGO

Thanks to all my friends in Dept. 101 for their good wishes and flowers sent me during my recovery from a recent accident.

Sam Roth, Dept. 101

Births

SAN DIEGO

BULLOCK—Son, Sam Joe, 8 lbs., 3 oz., born Jan. 20 to Mr. and Mrs. Bill Bullock, Dept. 401.

KLEREKOPER—Daughter, Kim Caroline, 4 lbs., 13 oz., born Dec. 30 to Mr. and Mrs. J. B. Klerekoper, Dept. 95-0.

MAROTTE—Son, Dale Allen, 7 lbs., 7 oz., born Jan. 10 to Mr. and Mrs. J. L. Marotte, Dept. 192-1.

RIOS—Daughter, 7 lbs., 8 oz., born Dec. 28 to Mr. and Mrs. M. Rios, Dept. 204.

Deaths

SAN DIEGO

CRIBBS—Hal Lamar, Dept. 6. Died Jan. 16. Survived by wife, Benilda.

ROBINSON—Franklin H., Dept. 400. Died Jan. 14. Survived by wife, Dorothea.

SWEAZEY — Clarence E., Dept. 31. Died Jan. 26. Survived by wife, Elva, one son and four daughters.

TERZIAN—Norman, Dept. 403. Died Jan. 14. Survived by wife, Hripsema, one son, two daughters, three grandchildren.

THOMAS—G. Covis, Dept. 99. Died in Clarksville, Texas, Jan. 15. Survived by wife, Myrtle.

Free Swim Nights To Start in March

First free Convair SD swim night at the Mission Beach Plunge has been scheduled for March 5, 7-9 p.m.

Monthly family swim nights sponsored by CRA, will continue throughout the season on the first Saturday of the month.

Free tickets are available at employee services, Plants 1 and 2, and also from departmental representatives.

SD Car Clubbers Set Rally Feb. 14

Mike Vernola, a representative of Road and Track magazine in Milan, Italy, will be guest speaker at tonight's meeting of the Convair SD Sports Car Club which starts at 7:30 p.m. in the Balboa Park Natural History Museum.

Vernola will discuss where to go and what to see on European tours, Grand Prix racing scheduled for the 1960 season, as well as give tips on how to go about purchasing cars while in Europe.

Next Sports Car Club event will be a "Tourally and Hill Climb" Feb. 14. First car will leave the Bldg. 19 parking lot at 9:30 a.m. The rally will last approximately four hours. The event is billed as a "fun tour, seasoned with a bit of rally, spiced with a dash of hillclimb."

Sports Car Council Names Dunn Winner

Bob Dunn (SD Dept. 6) was rated the top sports car driver in San Diego during 1959, according to figures released recently by the San Diego Council of Sports Car Clubs.

Dunn also won the honor in 1958, giving him first-place finishes for two consecutive years, a rare occurrence in the competition for council standings.

Others placing in the top ten were Convair SD's Don Hall (ranked fourth), and Astro's Bill Rector (ranked third) and George Kendall (ranked fifth).

Standings are decided on a point basis, take into account individual performances in ten championship events held throughout the year. Each of the top three drivers wins a trophy, the others receive dash plaques.

Ainsworth Sweeps SD Camera Honors

Top honors for the best print and slide entered in Convair SD Camera Club quarterly contests during 1959 went to Ron Ainsworth (Dept. 6).

Ainsworth, president last year of the Camera Club, swept both events in the competition. His winning slide and print will be entered in a city-wide contest to be judged in April.

Judging entries at the meeting Jan. 25 was Lillian Fayman, La Jolla photographer. Discussion involved composition, symbolism in composition, developers and papers, and print drying techniques.

No Camera Club meeting will be held Feb. 8. The group will next meet Feb. 22 at 7:30 p.m. in the Photo Arts Bldg., Balboa Park. Visitors are welcome.

Aeromodelers Set Judging, Contest

A judging of scale likenesses of models and a flying scale model contest have been scheduled next weekend (Feb. 6-7) by the Convair SD Aeromodelers.

Models will be judged by Ralph Wilcox and E. E. Wigham Feb. 6 at 7:30 p.m. in the CRA Clubhouse on Pacific Hwy.

The scale model flying contest at Hourglass Field will start at 8 a.m. the following day (Feb. 7), last until approximately 3 p.m. Merchandise and trophies will be awarded.

Judging the flying characteristics will be Charles Primbs (Dept. 6), Nat Antonioli (Dept. 6) and Jim Thompson, owner of the San Diego Model Shop. Guests are welcome at both events.

CRA Calendar

SAN DIEGO

(Convair SD Recreation Association has some 40 activities in operation. For information on SD sports, call CRA headquarters, ext. 1245, Plant 1.)

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AEROMODELERS — Model plane scale likeness judging this Saturday (Feb. 6), 7:30 p.m., CRA Clubhouse on Pacific Hwy. Flying contest starts 8 a.m. Sunday (Feb. 7) at Hourglass Field.

ARCHERY CLUB — Trophy shoot starts 10 a.m. Sunday (Feb. 14) at Singing Hills Range. Next meeting starts 7:30 p.m. Thursday (Feb. 18) in Astro cafeteria.

BADMINTON — Championship tourney Feb. 20-21, Balboa Park Federal Bldg. Entry blanks available at employee services.

BOWLING—Annual championship tourney March 5-6, 12-13, and 19-20, at Pacific Recreation. Entry blanks available at employee services.

BRIDGE CLUB—Next session Tuesday (Feb. 16), 7:30 p.m., Hotel Barcelona, Fourth and Juniper.

CAMERA CLUB—No meeting Feb. 8. Next meeting Feb. 22, 7:30 p.m., Photo Arts Bldg., Balboa Park.

COIN CLUB—Meeting Tuesday (Feb. 16), 8 p.m., Hearing Aid Society Bldg., 3843 Herbert St.

CHORALAIRES — Rehearsals each Monday evening at 7:30 in CRA Clubhouse on Pacific Hwy.

FISHING CLUB — Meeting Tuesday (Feb. 16), 7:30 p.m., CRA Clubhouse, Gillespie Field. Potluck dinner precedes meeting at 6:30.

GLIDER CLUB — Mid-Winter Soaring Championships Feb. 27-28 at Torrey Pines. Meet hours 10 a.m. to 5 p.m. Saturday; 10 a.m. to 4 p.m. Sunday.

GUN CLUB — Hunter safety course starts Saturday (Feb. 6) at 9 a.m., CRA Range, Gillespie Field. Shoot for women and juniors Sunday (Feb. 7) at 9 a.m., CRA Range, Gillespie Field. Meeting Tuesday (Feb. 9), CRA Clubhouse, Gillespie Field, 7:30.

ICE SKATING—Convair night every Thursday; discount rates between 6:30 and 8 p.m. at Iceland, 6055 Lake Murray Blvd.

JEEP CLUB — Rough Riders Run Feb. 6-7. Caravan leaves Truckhaven on Hwy. 99 Saturday at 8 a.m.

JUDO—Workouts every Thursday, 7:30 p.m., CRA Clubhouse on Pacific Hwy.

MOVIES—Reduced-price movies each Tuesday night at Academy Theater, 3721 University Ave. Feb. 9—"Johnny Dark," "Gidget," and "Hard Man." Feb. 16—"Rains of Ranchipur," and "Tanganyika." Admission: adults, 25¢; children, 15¢.

RADIO CLUB — Meeting tomorrow night (Feb. 4) at 7:30 in Harbor Drive headquarters.

ROLLER SKATING— — Next skate night Monday (Feb. 15) at Skateland, Front and "G" Streets, 6:30 to 9:30 p.m. Free tickets at employee services, both plants, and from departmental representatives.

SOLO FLYERS — Abbreviated ground school class starts Wednesday (Feb. 10) at 7:30 p.m., Jim's Air Service, Lindbergh Field.

SQUARE DANCING — Intermediate class now starting. Sessions Monday evenings, 7:30 p.m., American Legion Hall, 4061 Fairmount Ave.

WOMEN'S ACTIVITIES—New charm school course starts March 2. Registration open at employee services, Plants 1 and 2.

City Spanish Class Will Start Tonight

Prospective students of Spanish at Convair SD who missed signing up for the CRA-sponsored courses may wish to take advantage of a beginner's class that starts tonight (Feb. 3).

Instructor is Jim Hardison (Dept. 15-1). Sponsored by the San Diego City Schools, classes are held on a weekly Wednesday schedule, between 6:30 and 9:30 p.m., at the Alice Birney Elementary School, off Park Blvd. at El Cajon Ave.

Convair Men Among Contenders At 14th Soaring Championship

Glider enthusiasts from Convair SD and Astro are among top contenders and will play major organizational roles at the 14th annual Mid-Winter Soaring Championships Feb. 27-28 at Torrey Pines Gliderport.

Prominent contenders for honors are Walter Mooney, Gene Whigham and John Williams of Convair SD, George Tweed of Convair Pomona.

Leading organizational efforts for the event is Astro's Jim Mason who is meet chairman. He will be assisted by Convair SD's Ted Sanford, who is in charge of flight operations and scoring, and Jim Spurgeon who will be master of ceremonies, a position he has filled in all the previous contests.

The Mid-Winter Soaring Championships is sponsored jointly by the Associated Glider Club of Southern California, the Convair Glider Club, and the San Diego Junior Chamber of Commerce.

Championship events will include altitude (for which the trophy is supplied by Convair), bomb drop, aerobatics, and spot landings.

Meet hours will extend from 10 a.m. to 5 p.m. on Saturday (Feb. 27); and from 10 a.m. to 4 p.m. on Sunday (Feb. 28).

At least 25 pilots are expected to compete for trophies. A special competition of planes of one type will again be held. Meet officials expect a number of Schweizer 1-26s to be entered.

Hunter Safety Course Starts

A course on hunter safety requirements for Convair SD and Astro youngsters will start this Saturday (Feb. 6) at 9 a.m. at the CRA Range, Gillespie Field, El Cajon.

R. J. Tarver, area director and certified NRA instructor, will teach the CRA-sponsored course which is required by California state law for all persons under 16 before they will be issued their hunting licenses.

Students are asked to furnish their own guns if possible, although a limited number of club rifles are available. A 50¢ fee for ammunition is the only charge.

The course is held for four consecutive Saturdays plus an evening session during the week. Extras added recently to the course include a simulated field trip and a class on proper procedure for shooters on a firing line. The new 50-ft. junior range is used for the latter.

Registration can be made by merely showing up for the first class on Feb. 6. For more information contact Tarver, HI-4-1022.

Jeep Club 'Run' Set This Weekend

Annual Rough Riders Run of the Convair Jeep Club and the San Diego Ridgerunners will be held this weekend (Feb. 6-7).

Jeepsters will leave Truckhaven on Hwy. 99 at 8 a.m., strike out cross-country to Ocotillo on Hwy. 80.

Guests from as far away as Arizona and San Francisco are expected to participate. Last year, upwards of 100 jeeps traveled the rugged route.

All Convair SD and Astro persons owning four-drive vehicles are invited to participate. A $2 entry fee covers cost of any towing and first aid that may be required.

Additional information can be obtained by calling Tom Binder, after 4 p.m., at AT-4-0295.

Walker Takes First In SD Pistol Meet

W. G. Walker (Dept. 6) won the Convair SD Pistol Club's national match event for the first time at a shoot Jan. 24.

Walker tallied 285 points, besting runners-up G. McFarland (Dept. 6) and B. L. Broadway (Dept. 401) who tied for second with scores of 281.

In regular .22 police course competition, Broadway placed first in the master class with 290 points, followed by Jim Halfacre (Dept. 180) one point behind with 289. Carl Hornburg (Dept. 139) took first in the expert class with 277 points. Dale Young (Dept. 31) won the sharpshooter class with 279.

Adult Day Classes Set For Saturdays

Adult daytime classes will be held on Saturdays at the San Diego Adult High School during the next semester for people not able to attend weekday classes. To qualify for high school credit, students are required to attend at least 15 sessions of five hours each on Saturday. Information is available from the school office, BE-3-7402.

Badminton Tourney Slated Feb. 20-21 For SD and Astro

Playing dates for a joint SD and Astro championship badminton tournament have been advanced to Feb. 20-21 in the Balboa Park Federal Bldg.

The tourney was formerly slated for Feb. 27-28. Difficulties in reserving the gym have necessitated the date change, according to Tom Richardson, SD CRA commissioner.

Number of tourney brackets, he said, will depend upon number of entries. Plans call for A, B, and C divisions in singles and doubles, for both men and women, and possibly a mixed category. A special novice event may also be held, again depending on number of entries.

Participants will be required to post a $1 registration fee which will be refunded after the tournament. Trophies will be awarded by CRA in all classes. Entry blanks will be available soon at employee services at SD and Astro. They should be filled out and mailed to commissioners.

Additional information at Astro can be obtained by contacting Les Marr, ext. 1780. Richardson can be reached at ext. 2354, Plant 1.

GUN CLUB INVITES LADIES, JUNIORS TO SHOOT SUNDAY

A special shoot for women (age no limit) and juniors (under 15 years of age) from Convair SD and Astro will be staged by the Convair Gun Club this Sunday (Feb. 7) at the CRA Range, Gillespie Field, starting at 9 a.m.

Prizes will be gift certificates redeemable at Marston's.

Certificates will be awarded on a blind bogey basis, in other words both experienced shooters and novices alike will have an equal opportunity to win.

Qualified instructors will be on hand to give assistance. Guns will be available for the ladies and juniors free of charge. Events will consist of skeet, trap and small bore rifle. Shells will be sold at reduced cost.

Next Gun Club meeting will be held Feb. 9 at 7:30 p.m. in the CRA Clubhouse, Gillespie Field.

Trophy Shoot Set For Archery Club

Archers from Convair San Diego and Astronautics will compete for trophies at a shoot Feb. 14 at the Singing Hills Range starting at 10 a.m., J. B. Bence, club spokesman, reports.

Trophies will be awarded first and second place winners in two groups, A and B. Competition will extend throughout the day.

Next meeting of the CRA archery group will be held at 7:30 p.m., Feb. 18, in the Astro cafeteria.



SPORTS NIGHT—Convair SD Management Club meeting on Jan. 20 was attended by many San Diego sports world celebrities. Discussing program with S. L. "Lee" Shipstead (second from right), Management Club president, are (from left): sports announcer Al Schuss, light heavyweight boxing champion Archie Moore, and American League umpire Ed Runge.

Fishing Club Slates Meeting; Invites Button Award Winners

A jam-packed program of interest to both boating and fishing enthusiasts at Convair SD is on tap for the Feb. 16 meeting of the CRA Fishing Club at 7:30 p.m. at the CRA Clubhouse, Gillespie Field.

A potluck dinner at 6 p.m. will precede the meeting. Anyone interested in attending is asked to contact Ruth Menzie, AT-1-8247.

Highlighting the meeting will be presentation of 26 button awards to winners of monthly Convair SD fishing contests.

Also scheduled is a "boating safety" program. R. W. Menzie, CRA commissioner, said a boat and trailer, fully equipped will be on display. A Coast Guard representative will be on hand to answer questions.

Guest speaker for the evening will be Horace Carr, captain of the deputy game wardens for Region Five, and owner of Electro City. Carr will narrate and show movies of his hunting and fishing trips to Idaho. A question session will follow the movies.

Menzie asked all winners of button awards to attend the meeting. Largest entry in the contest was a 238-lb. black sea bass landed by C. L. Moore (Dept. 21-2). Another top catch, pointed out by Menzie, was a 27-lb., 8-oz. halibut caught in Mission Bay by G. K. Phares (Dept. 31). Phares used a light-weight Langley casting outfit with a six-lb. test monofilament line.

Taking honors for the largest marlin entered in the contest is M. Sullens (Dept. 232). His marlin weighed in at 188 lbs. Glenn Grantham, an unsuccessful marlin fisherman for a number of years, last year not only landed his first but added a second for good measure.

Following is a complete list of button award winners.

Halibut: G. K. Phares (Dept. 31); marlin: M. Sullens (Dept. 232), F. L. Romig (Dept. 188-6), G. G. Grantham (Dept. 230), Gertrude Cromartie, W. E. Burnett (Dept. 21), Gertrude Magie (Dept. 98-7).

Yellowtail: Frank Sceppe (Dept. 120), R. W. Allen (Dept. 6), Fred Schoolcraft (Dept. 3-1), C. H. Gooding (Dept. 267), L. M. Guess (Dept. 192), W. C. Bowen (Dept. 188), R. D. Bach (Dept. 34-2) and C. L. Moore (Dept. 21-2).

Bonito: L. P. Smith (Dept. 267), L. Budzynski (Dept. 101), W. C. Bowen (Dept. 188), Sullens, Grantham, and R. W. Menzie (Dept. 31).

Black sea bass: Moore, M. M. Maranda (Dept. 4); barracuda: Moore, W. C. Bowen (Dept. 188), and L. L. Schultz (Dept. 31).

Entries Open For CRA Keg Championships

Entry blanks are now available for the nineteenth annual Convair SD championship bowling tournament to be held March 5-6, 12-13 and 19-20 at Pacific Recreation, Jim Hayman and Mike Brooks, CRA co-commissioners, report.

Forms can be acquired at employee services, Plants 1 and 2, and from league secretaries. Deadline for entries is Feb. 19.

Keglers are urged to fill forms out and turn them in, as soon as possible, to members of the tournament committee.

Tourney events this year will include team competition, singles and doubles and a special all-events bracket.

Official averages of the 1959 book will be used. If none are available, the highest average of 21 games or more; or assume average of 200 for men, 160 for women.

ABC and WIBC rules will be in force. Maximum team average is 855; maximum doubles, 369.

Ratio for prizes will be one for every five bowlers.

Convair Folk Win Recreation Awards From IRC Council

One Convair SD man was elected to office and five other Convair representatives received achievement certificates last week at the annual banquet of the San Diego Industrial Recreation Council.

Gil Crosthwaite, veteran CRA softball commissioner, was installed as the Council's second vice president.

Convair SD persons received achievement certificates for organizing the following IRC events: Jack Swank, skeet and trap shoot; Gene Horstman, rifle shoot; Ash Bishop, pistol shoot; Al Phipps, archery shoot; and Martha Woodberry, fashion show.

Reservations Open For Bass Transfer

Any Convair SD fishermen interested in participating in the transfer of Florida bass from the Upper Otay Lake are asked to contact Fishing Club commissioner, R. W. Menzie, AT-1-8247.

The transfer will take place the weekend of Feb. 13-14. Any interested anglers should contact Menzie before this Friday (Feb. 5) so that reservations can be made.

New Ground School To Start Feb. 10

An abbreviated ground school course, sponsored by the Convair SD CRA Solo Flyers, will start next Wednesday (Feb. 10).

It will last about eight weeks, cover the following subjects: CAA rules and regulations; theory of flight; navigation (including radar navigation).

The class will meet each Wednesday evening at 7:30 at Jim's Air Service, Lindbergh Field. After this class finishes, it will be some time before the course is repeated, according to Rex Robinson, instructor.

Purpose of course is to prepare students for their FAA private flying exams. For more information, contact Robinson, ext. 2271, Plant 1.

CRA Sports & Recreation Convairiety

Three Convair Hoop Teams Leading in City Leagues

All three Convair SD basketball teams entered in city competition last week were lodged in first place in their respective leagues.

Convair Tool Manufacturing, entered in the Industrial A League, held undisputed first place with a record of three wins, no losses. In their last outing, they overpowered Convair Astronautics, 57-28.

In the Metro League, Convair's entry is locked in a three-way tie for the top rung. Convair picked up victories during the last two weeks over Vespa Scooters, 47-45, and Scott Memorial, 53-25, setting their slate at three wins and no losses.

Convair SD girls' hoop squad continued to hold down first place in the Women's League, outscoring Astronautics, 57-33, and drubbing Kilo-ettes, 56-13. Tentative arrangements have been made for the Convair gals to play two exhibition games this weekend in Long Beach. Opponents will be the Long Beach Blues and the Long Beach Independents.

In shop league play, Dept. 6 Electrical was leading the pack last week with four straight wins. Electrical scored victories during the past two weeks over Service Parts, 37-21, and Dept. 603 Tooling, 51-20.

Close behind the leader, sporting a record of three wins against no losses, is Dept. 6 Physics, victorious over Service Parts, 42-13, and Dept. 603 Tooling, 51-20. Coming up in third place is the 880 Jets team, who suffered a first-game loss to Dept. 6 Physics, 46-24. In their last two games they piled up 76 points. They crushed Tooling, 76-22, then matched point output against Dept. 97 Tabulating, 76-18.



LEAGUE LEADERS—Convair SD girls' basketball team entered in city competition started off with rush, winning preseason tourney. They are currently in first place in city league. Coach Mary Spall signs in players before game. Front row, from left: Corky Dowdy, Dottie Wisswell, Jean Todd; back row, from left: Virginia Sapp, Joyce Currie, Nadine "Skets" Prior, and Irene Dionne.

Discount Tickets

CRA is offering a 20 per cent discount on tickets to the comic opera, "Voyage to the Moon," at the Russ Auditorium Feb. 21 at 8:30 p.m. and to the Feb. 23 appearance of Andres Segovia, guitarist, also in the Russ Auditorium.

World's Glider Mark Equaled; Williams, Mancuso Win Honors

John Williams (Dept. 6) won three of four incentive awards given by the Convair SD CRA Glider Club for performance in different categories during 1959.

Each of the awards is $20 cash. Duke Mancuso (Dept. 6) won the fourth category: highest altitude attained in a glider.

Mancuso rose to 37,500 feet over Mojave, Calif. The flight surpassed the world's record for altitude gained in a glider. It did not, however, establish a new mark, because it failed to better the record by three per cent or more.

Williams won the following categories: longest distance flown; most hours flown and goal flight. He took the distance award by gliding 112 miles—from Elsinore to Brawley, Calif. Williams flew ahead of an air front, covered the distance in two-and-one-half hours.

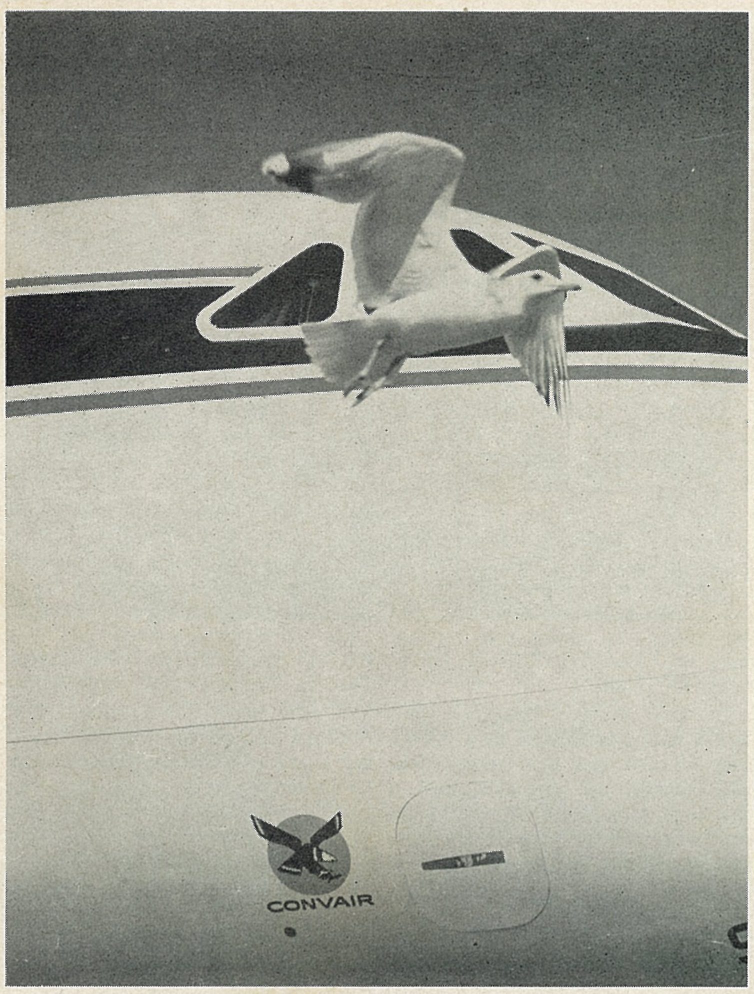
To take the "most hours flown" award, Williams logged 48 gliding hours. Incidentally, Williams chalked up his flight time during a four-month period, September through December.

In the glider "goal flight" event, the pilot must declare where he is going and attempt to get there. Competing in the West Coast championship, Williams flew from El Mirage to Apple Valley Airport, on to Helendale Airport, and back to El Mirage, a distance of 72 miles.

Convair SD's Glider Club meets by notice only. Information on activities can be obtained by calling Williams, ext. 2441, Plant 1.



SONGSTERS—Convair SD's Choralaires, under direction of Bill Vogel, are approaching end of busy season that has included appearances before such groups as Management Club Jan. 20. Next engagement of Choralaires is scheduled for Feb. 5 at meeting of Scottish Rite Women's Club at Cedar St. Masonic Temple.



CONTOURED—Bob Wren of SD still photo laboratory took this crackerjack picture recently of seagull floating past cabin of Delta Air Lines jet 880. For caption, he suggested "The Only Way to Fly?" (For those unfamiliar with Convair's San Diego plants, seagulls are frequent visitors, particularly at lunchtime.)

Aged 20 Years in Six Months' Testing, 880 Fuselage Proves Skin Is Tough

A Convair 880 fuselage which has lived a "lifetime" of over 20 years' hard service in the last six months has proved the skin of Convair's jet transport is as tough as the proverbial elephant hide.

Results of the recently-concluded fatigue, fail-safe, and allowable damage tests show that the Convair 880 will stand up under maximum fuselage damage without endangering plane or passengers.

Cut, chopped, and shot in its vital spots, the 880 fuselage has withstood rougher treatment than any plane will ever undergo in actual flight during the cycling test program in the hydrostatic test tank at the SD seaplane ramp facility.

"The fuselage held up so well, with a minimum of repairs, that, together with the rapid cycling action, we were able to meet our completion date in several weeks' less time than planned," said A. R. Vollmecke, structural test lab assistant group engineer in charge of the 880 test program.

The testing program was completed satisfactorily on schedule in spite of being extended by more than 12,000 cycles. Originally planned as a 50,000-cycle program, testing actually put the 880 fuselage through 62,314 cycles, the equivalent of at least 20 years' constant flying, before it was concluded the first part of January. Additional cycling compensated for the greater utilization of jets which will see them putting in more flying time while in service than conventional propeller craft.

The three-part test program began last June in the 394,994-gal. tank. Fatigue testing saw the cycle article loaded to simulate actual flight, landing, and taxiing conditions and cycled under water pressure to see how long an actual plane would hold up.

"We could have continued fatigue testing for several thousand more cycles, as far as the state of the fuselage was concerned," commented Vollmecke.

During fail-safe and allowable damage testing, under way since last November, the structure was cut in critical areas to gauge how long an 880 could fly after being damaged.

John Gillette, project engineer, said that 15 to 20 cuts were made in areas that receive the highest stresses — around windows and doors, through the main structure itself, belt frames, stringers, and wing spars. Then the fuselage was put through conditions to simulate storms, rough air, heavy gusts of wind to see how much and in what direction the cracks would grow before they would endanger the plane.

One of the most spectacular tests saw a steel spear with a 19-inch blade shot into the fuselage from a cross bow-like steel frame with a 13,000-lb. load in the spring which released the 4-foot shaft. The spear, simulating a piece of flying metal, was plunged four inches into the fuselage just above the cabin window forward of the wing.

Divers Bob Callahan and Earl Moore, both of Dept. 31, dropped to the bottom of the 20-ft. deep tank to route out the cracks, extending some to as long as 20 inches across vital sections of the plane. Gillette joined the two shop mechanics in the tank to make underwater inspection during testing and Jerry Green of SD motion picture section was on hand to take underwater movies of each step of the program.

Results will be used as supplementary data for Federal Aviation Agency certification of the 880's air worthiness with major damage to critical areas of the pressurized cabin, said Vollmecke.

The tank has been drained for removal of the cycle pressure article and the fuselage lifted out with two huge cranes after the stub wings were cut through to free the main body.

Hustler Crews on No. 30 and No. 18 Honored For Top Performance

This is a success story.

Its theme is honest concern about a job to be done, and its heroes are maintenance crews for two B-58 Hustlers at Convair Fort Worth.

The climax comes when Hustler No. 18 begins making twice as many flights as before, at one half the cost, and Hustler No. 30 begins accumulating data following flight after flight with no results.

And "poetic justice" is done when crews for these two airplanes are awarded caps and pins for Maintenance Excellence.

The story of airplane No. 30 owes a great debt to flight crew members, according to team captain E. L. Schultz. "Their enthusiastic cooperation with maintenance crews, even when no results were being obtained, was largely responsible for our present two flights a week with good results," Schultz reports.

Pilot is Val Prahl; Jim Lucas is flight engineer, and Jack Denton is bomb-nav operator.

No. 30, involved in bomb-nav tests, began to achieve results about the first of November, after several months of no success. The team captain says during that time the spirit and cooperation of crews never lessened, in spite of the disheartening circumstances.

Crews for Hustler No. 18 were evaluated for several months, reports C. C. Widaman, team captain. At first, the airplane was making flights once every 15 days, but now it goes up once a week, collects more data, and reports fewer pre-flight and in-flight squawks.

This marks the fourth time the Maintenance Excellence Award has been presented by development department. Points considered in evaluating a crew are safety practices, housekeeping, flights on schedule, budget, flight effectiveness, attitude and teamwork, and frequency and severity of flight discrepancies.

F-106s to Aim Booms At Mont. Avalanches

F-106s, Convair's newest long-range jet interceptors, will take on a new kind of chore this spring.

In a jet-age solution to the yearly problem of avalanche danger in Glacier National Park in Montana, F-106s will be sent over the area to induce slides with sonic booms.

Planes taking part in "Operation Safe Slide," will be from the 498th Fighter-Interceptor Squadron at Geiger Field, Spokane, Wash.

Missile Track Ship Planned

GROTON — Electric Boat Division has been awarded a $1\frac{1}{2}$ million subcontract from Pan American World Airways for electronic components for a missile-tracking ship.

Electric Boat will design and install an integrated package of electronic units on board a converted Victory ship, which will be used in gathering data for Cape Canaveral missile firings.

The ship will be stationed near the area where a missile is expected to land. It will track the flight by radar and send back terminal trajectory data.

Radar sets, navigation equipment, electronic computing equipment and weather instrumentation equipment are among the devices included in Electric Boat's installation package.

COMPACT CARS JOIN CONVAIR SD FLEET

First compact cars joined Convair San Diego's car fleet last week with arrival of 1960 replacements.

B. R. Hisaw, SD chief of transportation operations, explained that the addition of five Chevrolet Corvairs is expected to cut costs of transportation within Convair SD for people on company business.

Besides the Corvairs, 10 Ford station wagons and five Ford four-door sedans were received to replace 20 1958 Chevrolet sedans.

The cars are being supplied by Hill Truck and Car Rental Co.

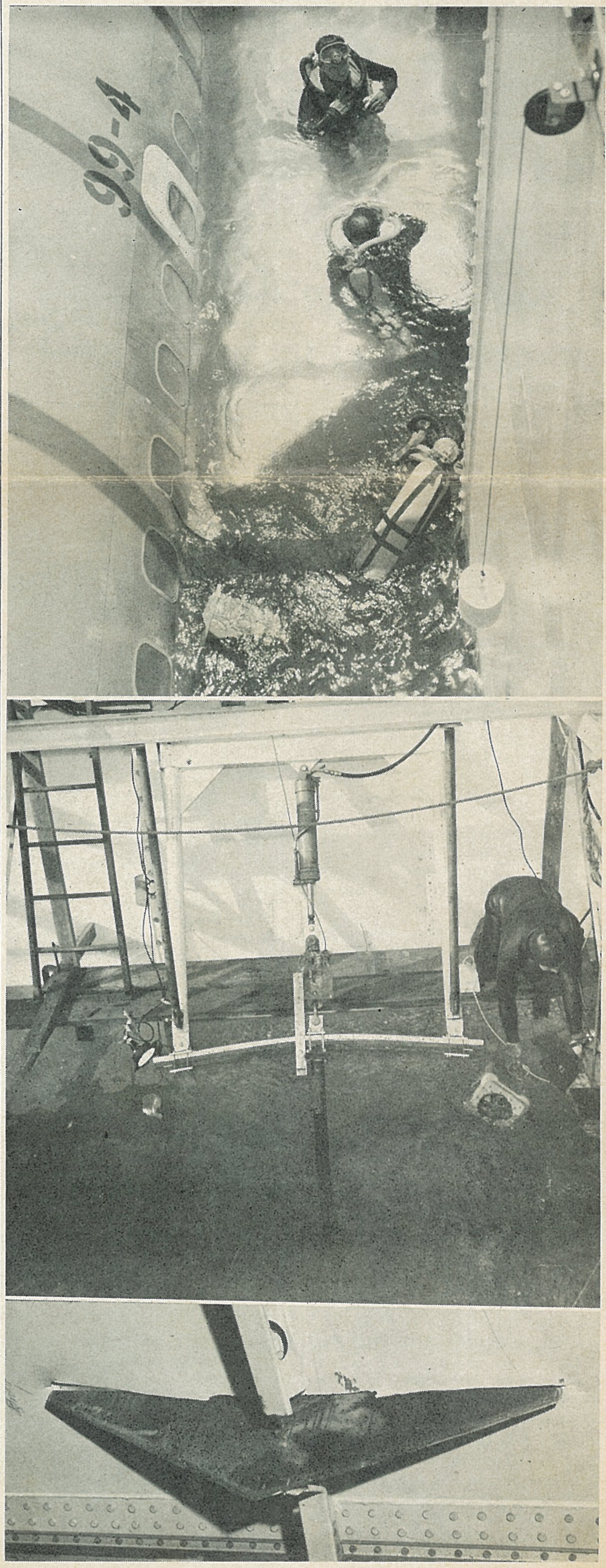
First ES at Warren Goes to Lensman

WARREN AFB — The first Convair Astronautics employee at this site to receive an Employee Suggestion award is J. R. "Dick" Harper, an Astro photographer.

Harper's suggestion dealt with darkroom improvements to improve operations and safety.



VISITOR—Lt. Gen. John Paul McConnell, commander, Second Air Force, SAC, visited Astronautics plant recently. He is shown with J. R. Dempsey, Astro manager, and J. V. Naish, Convair president. McConnell is responsible for Atlas bases in Kansas (Forbes, Schilling) and Nebraska (Lincoln, Offutt).



TOUGH SKIN—Underwater pressure tests recently conducted at Convair SD seaplane facility proved that Convair 880 fuselage will hold up for years of service. In upper photo divers are dropping into tank for inspection during tests. Center shot shows steel frame set to shoot huge spear (lower photo) into fuselage. Bob Callahan (Dept. 31) is ready to dive into tank to evaluate damage.

C-V CONVAIR

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San Diego EDITION

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SAN DIEGO, POMONA, ANTELOPE VALLEY, VANDENBERG AFB, CALIF. — AFMTC, CAPE CANAVERAL, FLA., FORT WORTH, TEX.



SPLASH! — River water, air lifted to San Diego from many waterways over which Delta Air Lines flies, is broken over 880 bow by Leona McCurdy, Miss San Diego.

Gulf, Lake, River Water Blended In Christening

C. E. Woolman, president of Delta Air Lines, took delivery of Delta's first Convair 880 in ceremonies last Tuesday (Feb. 9) on Convair SD's flight line.

Convair President J. V. Naish presented Woolman with a commemorative gold key to the pilot compartment of the plane.

Leona McCurdy, Miss San Diego, and Maryanne Kowaleski, Delta stewardess, christened the 880 the "Delta Queen" with bottles of water that blended samples from more than 50 bays, gulfs, lakes and rivers along Delta's 11,385 miles of air routes.

B. F. Coggan, Convair vice president and San Diego manager made the introductions. Other speakers included Neil Burgess general manager of General Electric's commercial engine operation, Evandale, Ohio, and Vice Mayor Ross Tharp of San Diego. Tharp gave Woolman an 880 model to present to the mayor of the city of Miami. Also representing Convair on the speaker's platform was August C. Esenwein, executive vice president.

Hillman Gets Director Post

S. E. G. Hillman, formerly manager of material at Convair Fort Worth, last week was appointed director of procurement and material for Convair.

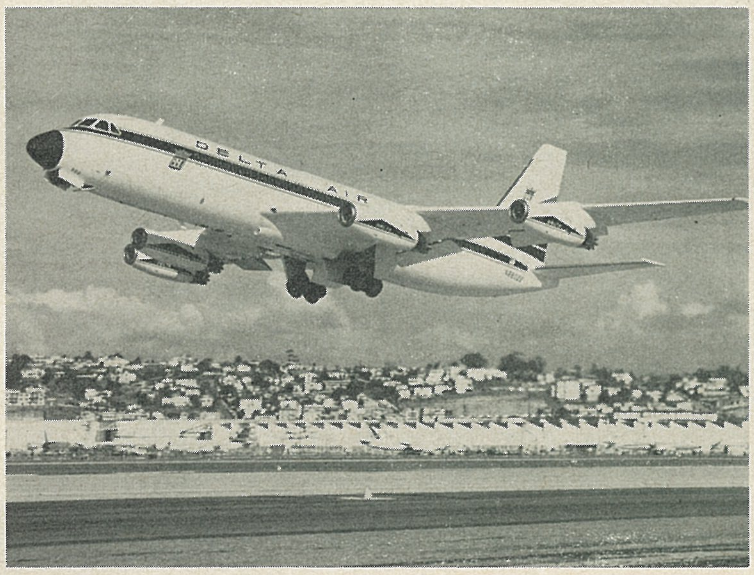


S. E. G. Hillman

He reports to August C. Esenwein, executive vice president. H. G. Golem, director of purchasing, reports to Hillman.

A native of London, England, Hillman came to Convair in 1953 after more than ten years with the British-American Tobacco Co. in Shanghai, China. He was in business in Hong Kong for a time before coming to the United States.

Hillman was a material department purchasing agent in 1955 when he succeeded Otto Dworak at Fort Worth as chief of outside production. He was named manager of material in February, 1957.



LIFT-OFF—Delta Air Lines' first 880 leaves Lindbergh Field, en route to Miami, Fla., and speed record. Among those replying to congratulatory telegrams was Frank Pace Jr., General Dynamics board chairman, who wired C. E. Woolman of Delta: "Most gratified your comments on performance of Convair 880 on transcontinental run. We share with you and General Electric the pride in this achievement."

Record-Breaking 880 Begins Pilot Training Flights

Delta Air Lines' first Convair 880 jet shattered the transcontinental transport speed record between Miami and San Diego last Wednesday, spanning the continent in 3 hours, 31 minutes and 54 seconds, according to an announcement by C. E. Woolman, Delta president.

The Delta Queen, Convair's first delivered 880, carrying 32 Delta, Convair, FAA and General Electric officials, started its takeoff roll on Lindbergh Field at San Diego at exactly 10:11:46 a.m., Pacific Standard Time, Feb. 10.

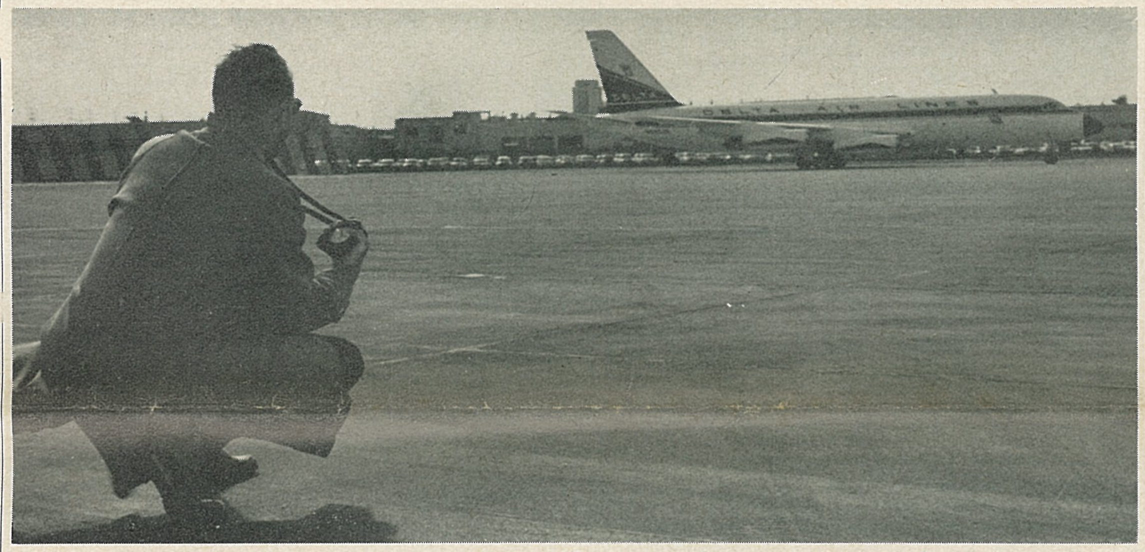
It covered the 2,338 miles to Miami at an average of 665 miles an hour, said Woolman, with a top ground speed of 750 mph recorded as the jet airliner passed over Houston, Texas. Tail winds helped push the 880 to its record speed.

Capt. T. P. Ball, Delta's superintendent of flight operations, kept the sleek, all-white Convair 880 at an altitude of approximately 33,000 feet during the entire flight. A slight detour had to be made over the Gulf of Mexico because of military operations.

Captain Ball called his shots close when he filed his advance flight plan calling for a time of 3 hours and 32 minutes. He bettered his flight goal by six seconds. Fastest previous flight from Southern California to Miami was 3 hours, 58 minutes, 55 seconds, set by a DC8 Jan. 4 of this year in a delivery flight to Eastern Air Lines from Long Beach to Miami, a distance of 2,355 miles.

"This new Southern transcontinental speed record clearly establishes the General Electric-powered Convair 880 as the queen of the skies," Woolman wired Convair President J. V. Naish. "The aircraft performed magnificently and fully measured up to my expectations for both plane and en-

(Continued on Page 2)



GET SET! GO!—Charles Tibbetts, official timer for National Aeronautics Association, holds stop watch as Delta 880 passes on takeoff run. Speed run was timed from second wheels started turning until plane passed finish marker at Miami.





DELIVERY—C. E. Woolman, president of Delta Air Lines (center in top photo), accepts key to pilot's compartment from J. V. Naish, Convair president, during delivery ceremony for Delta's 880 last week. Taking part is Delta Hostess Maryanne Kowaleski. In lower photo is Delta crew, from left, R. E. Tidwell, flight engineer; Capt. T. P. Ball, pilot; Capt. James H. Longino, co-pilot.

Scholarship Deadline Near

Convair San Diego and Astronautics sons and stepsons have until a week from next Friday (Feb. 26) to apply for the annual Convair sons' scholarships.

Two San Diego sons and one Astro son will be named to receive the 1960 scholarships which provide for a maximum of five years study in engineering or allied science at an accredited college or university. Besides tuition and laboratory fees, an additional $250 a year is allotted for expenses.

All sons or stepsons of Convair SD and Astronautics employees are eligible, providing one parent has worked for Convair for at least five years. Students must be graduating from high school this year or have been graduated within the last two years.

Those eligible will be notified by March 16 and winners announced in early April.

Forms may be picked up at high schools throughout the San Diego area and at Convair SD and Astro educational services offices. They are to be turned in with transcripts before Feb. 26.

Last year's winners for SD were Allan King, son of George C. King (Dept. 6); John Rayko, son of Charles Rayko (Dept. 303 at Edwards AFB); while Astro's scholarship went to Raymond Sodomka Jr., son of R. R. Sodomka (Dept. 402).

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Next week is the deadline for applying for Convair SD Management Club scholarships, reminds H. E. Mayer, committee

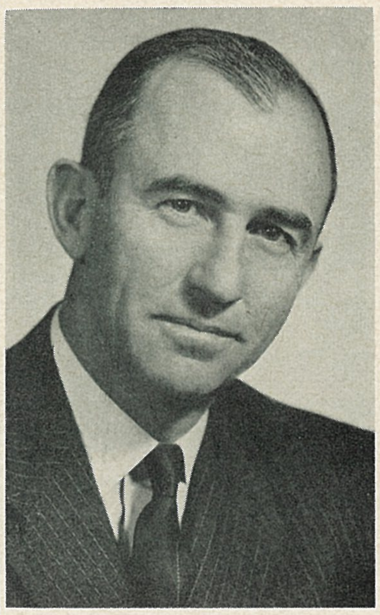
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Pace on Committee To Identify 'Great Issues' of Future

Frank Pace Jr., chairman of the board of General Dynamics Corporation, is vice chairman of a special committee appointed last week by President Eisenhower to "identify the great issues of our generation."

Pace will serve with committee chairman, Henry Winston, former president of Brown University. Purpose of the 11-member committee will be to recommend national policies and programs for the next decade or more.

The committee includes such prominent figures as James Killian, president of Massachusetts Institute of Technology; Gen. Alfred Gruenther, president of the American Red Cross; and James Conant, former president of Harvard University and former ambassador to West Germany.



PICKED BY IKE — Named to high-level policy forming committee by White House is Frank Pace Jr., General Dynamics board chairman.

Benny Kiegle, Convair Veteran, Honored by Friends, Retires

Early February proved eventful for B. F. (Benny) Kiegle, SD Dept. 123.

On Feb. 2 he completed 35 years of continuous service; Feb. 5 saw his retirement from Convair; and on Feb. 7 he was honored at a testimonial dinner.

Born in Buffalo, N.Y., Kiegle first worked for Greyhound Motor, Keystone Tool, and Pierce Arrow. In 1925 Major Reuben Fleet, president of Consolidated Aircraft, hired him as a machinist in the sheet metal department. He came with Consolidated when they made the move from Buffalo to San Diego in 1935.

Kiegle, well known throughout Convair SD, has had wide experience, having held various positions in many departments, including sheet metal, welding and tubing. At the time of his retirement he was assistant foreman in welding and assembly.

Attending the dinner were more than 100 long-time friends, many of them dating from early Buffalo days. M. C. Val Dez, chief safety engineer at SD, interspersed his emcee chores with some sleight-of-hand.

A. R. Johnson, SD superintendent of fabrication, presented Kiegle with a gift of luggage.



RECOGNITION—B. F. Kiegle, SD Dept. 123, beams with pride after receiving service emblem and gift of diamond ring signifying 35 years with Convair. From left, B. F. Coggan, J. H. Famme, D. R. Bryson, H. E. Pasek, Kiegle, P. G. Osborn, A. R. Johnson, Conrad Kunze.

FUEL MEN TO TAKE SD JET COURSE

Fifteen fuel servicing experts from all parts of the world will be at Convair San Diego next week to become acquainted with Convair jet transports.

Since oil companies provide fueling service for airlines in other countries, California Texas Oil Corp., overseas division of Texaco, is sending representatives to Convair SD for a special training course on servicing requirements of the 880 and 600. John Nowak, field representative of SD customer service department, will instruct the two-day course.

Attending will be Caltex personnel from Egypt, Germany, Switzerland, Italy, Belgium, Denmark, Netherlands, India, and New York.

Bloodmobile Visit For Plant 2 Slated

Blood donors at Plant 2 still have a couple of days to sign up for the next Convair San Diego bloodmobile visit, said Ken Wulfemeyer of SD employee services.

Sign-up cards can be picked up from department supervisors throughout this week, he said.

The first bloodmobile visit for a couple of months will be Feb. 25 for first-shifters at Plant 2. It will be located in Bldg. 3 from 10 a.m. to 2 p.m. next Thursday.

Naish Will Present 1959 Award Tonight

Convair President J. V. Naish will present the 1959 President's Award at a meeting of the Convair SD Management Club tonight (Feb. 17) in the Caribbean Room of El Cortez Hotel.

The award will go to one of 20 Convair SD CIP submitters, each of whom has totaled more than $25,000 in savings.

Cost Reduction Honor Roll

Installed during the last two weeks:

H. H. Hurley's (Dept. 197) CIP to use "iron powder" welding electrodes instead of low hydrogen rods on the Model 7 launcher will save Convair $30,271 a year.

Mary J. Hansen's (Dept. 216) ES recommending an addressograph machine for stamping spares will save $2,489 a year.

Speaker Scheduled For Lens Meeting

Convair SD Camera Club members will hear a discussion on "Floater Insurance" at a meeting next Monday (Feb. 22) at 7:30 p.m. in the Photo Arts Bldg., Balboa Park.

An agent of Barney and Barney, local insurance brokerage, will make the presentation. The program is of special interest to anyone who transports expensive equipment (cameras, golf clubs, etc.) by car, according to Ron Ainsworth, club spokesman.

Slides of last month's outing will be shown and refreshments served.

SD Man Given Leads In Little Theater

Bert Horner (SD Dept. 6) in six months has progressed from a bit part to a leading role at the Coronado Community Theater.

Horner is currently playing the lead, Douglas Sayre, in "Third Best Sport."

The Convair actor first received notice for his portrayal of Mr. Wilson in "Suds in Your Eye." Later he appeared as Dr. Bradman in "Blithe Spirit" and Tony Roberti in "The Man in the Dog Suit."

★ Convairiety ★

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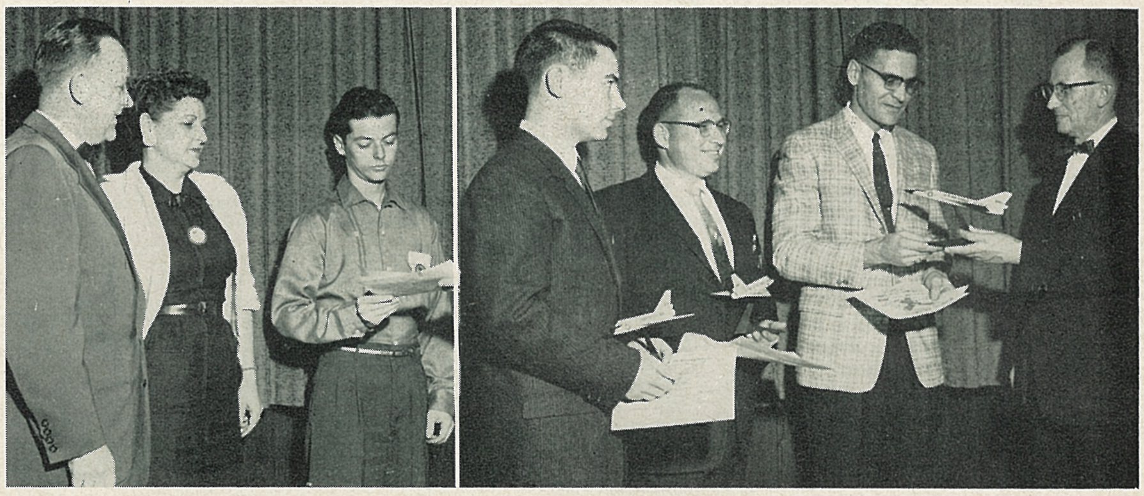
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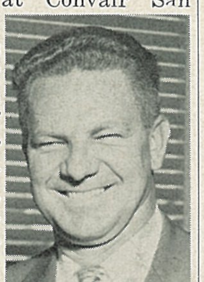
Antelope Valley Editorial Office, Room 103, Bldg. 301 B, Palmdale, ext. 337. Staff: Richard L. Millett.



FAMILY AFFAIR—Students from Convair SD and Astro last month received certificates upon completion of manufacturing methods and processes class. Conrad Kunze, Convair SD assistant manager-operations, made presentations. Among graduates were three members of Kellogg family (photo at left), Stearns (Dept. 400), Evelyn (Dept. 44), and son, William (Dept. 401). Top three graduates were Don Callard (Astro), Clyde Perry and H. G. Pedrini (both SD), shown at right with Kunze.

Putness Named Asst. Chief Eng.

George Putness, chief of engineering flight test, has been appointed assistant chief engineer-administration at Convair San Diego.



George Putness

He succeeds R. R. Hoover who has been named chief project engineer for jet transports, W. W. Fox, chief engineer, has announced.

To accommodate the added emphasis on sales, B. J. Simons, senior project engineer, will concentrate on prospective customers, reporting to Hoover, Fox said.

Putness joined Convair in final assembly in 1941, later served in the U. S. Air Force, then returned to Convair in 1944 to join flight test.

Successively, he was flight engineer, senior flight test engineer and service engineer on the early Convair-Liners before his assignment to Edwards AFB as assistant F-102 project engineer.

He was named chief of engineering flight test at Convair San Diego in July of 1957.

Hoover joined Convair in 1936 as an assistant project engineer on the P5Y before being assigned to the XC-99 as project engineer. He was project engineer on the B-36 modification at Convair SD, and later the Model 340 and F-102.

★ ★ ★

Howell P. Williams, senior structural group engineer, has been appointed chief tool project engineer at Convair San Diego reporting to W. P. Woods, chief tool engineer.

The appointment was announced last week by Conrad Kunze, assistant operating division manager-operations. Williams, a graduate of Penn State College, joined Convair in 1941 as a detail draftsman. He became a design group engineer in 1946, later advanced to senior design group engineer, and has been a senior structural group engineer since April of '59.

Class of 74 From Astro and SD Graduated in Mfg. Methods

Certificates have been awarded 74 Convair SD and Astro students who successfully completed the manufacturing methods and processes class sponsored by SD material department in conjunction with educational services.

Presentations were made Jan. 29 by Conrad Kunze, Convair SD assistant manager-operations.

The present class was the fourth to take the course, bringing the total number of graduates to 224. Primary purpose of the course, which is accredited by San Diego Junior College, is to familiarize personnel with different processes and methods used in airframe manufacture.

Of the 74 Jan. 29 certificate winners, 23 finished both semesters, the remainder completed the first. A new class got under way Feb. 3. It is held on a Tuesday or Thursday evening schedule in the Bldg. 14 auditorium.

Instructor is Ray Hardy, SD material services assistant supervisor. He said much of the credit for making the course a success is due the many Convair vendors "who contributed film material, literature and on occasion supplied guest speakers." Hardy estimated some 52 vendors contributed their services.

Top three students in the last class were Don Callard (Astro) and Clyde Perry and H. G. Pedrini (Convair SD), each of whom scored perfect marks and attendance records.

Standard manufacturing methods such as machine shop and sheet metal techniques as well as numerical control and explosive forming comprise the bulk of the second semester's work.

Delta Will Fly 880s on Routes Serving East, Middle West

(Continued from Page 1)

gines. My highest commendation goes to everyone in Convair San Diego and General Electric who has contributed to the spectacular success the Convair 880 has achieved."

The record flight was officially timed by the National Aeronautic Association.

After stop-over at Miami, the 880 was flown to Delta's headquarters at Atlanta, Ga., where it will be used for pilot training and route checks until it goes into passenger service in May.

Delta Air Lines plans to fly its fleet of 10 Convair 880 jet transports over airline routes in the East and Middle West. Ultimately jet service will connect 17 cities in the United States, Cuba, Jamaica, and South America. They will be Houston, Dallas, St. Louis, Chicago, Memphis, New Orleans, Cincinnati, Detroit, Atlanta, Tampa, St. Petersburg, Miami, Washington, D.C., and New York in the United States; Havana, Cuba; Montego Bay, Jamaica; and Caracas, Venezuela.

Delta now has an application pending before the Civil Aeronautics Board as a carrier to establish a southern route across the United States.

Woolman indicated that Delta proposes to add another 10 Convair 880s to its fleet if it is awarded a favorable decision in the southern route case. Final decision is expected late this year.

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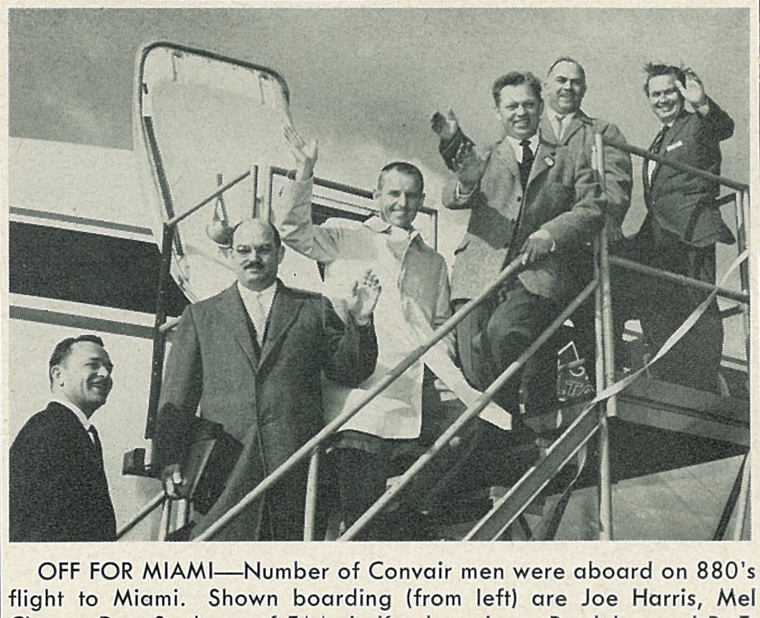
B. F. Coggan, Convair vice president and San Diego manager, headed a group of Convair men aboard the Delta Air Lines Convair 880 on its first transcontinental flight.

Accompanying him were Ralph Bayless, Convair director of engineering; L. J. Bordelon, chief of transport service; Mel Clause, assistant supervisor of field service; Joe Harris of contracts.

A. P. Wilson, Convair production flight pilot, and L. Knudsen, SD flight engineer, were aboard as part of the crew. They will remain at Atlanta for several weeks to assist in pilot training.

Bordelon and Clause will finalize details for 880 support and communications at the Atlanta headquarters.

Convair SD field service representatives on the ground awaiting the arrival of the first Delta 880 were Robert Fitzgerald, Court Zeiss, and Walter Bellaston. They are assigned to the Delta organization in support of Convair 880s.



OFF FOR MIAMI—Number of Convair men were aboard on 880's flight to Miami. Shown boarding (from left) are Joe Harris, Mel Clause, Don Seaburg of FAA, L. Knudsen, Larry Bordelon and B. F. Coggan, manager of SD operating division of Convair.

STUDENT GRANTS OFFERED BY CLUB

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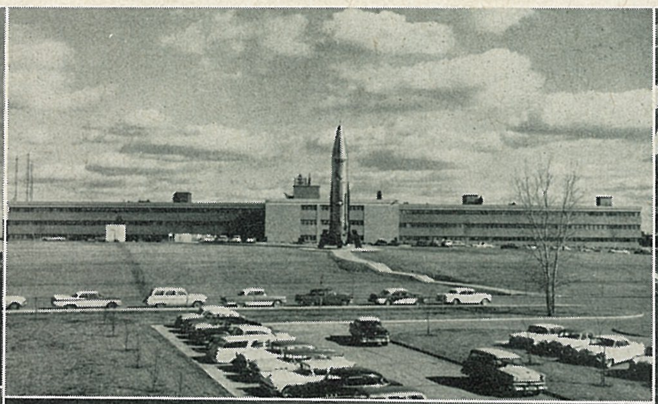
chairman.

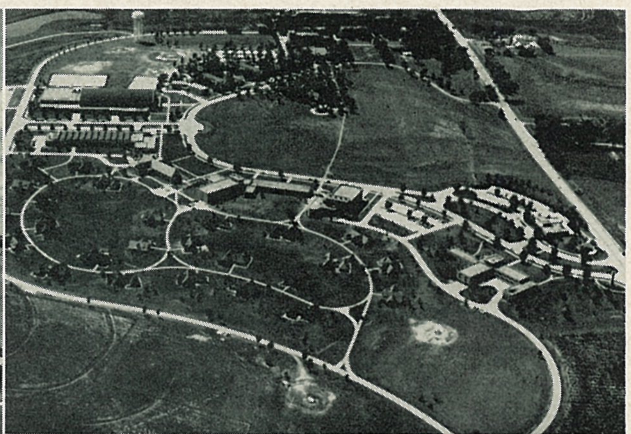
Applications, together with transcripts of grades, are to be in the hands of the committee by Friday (Feb. 26).

Any Convair San Diego son or daughter is eligible for the scholarships if they are completing high school this year, either first or second semester.

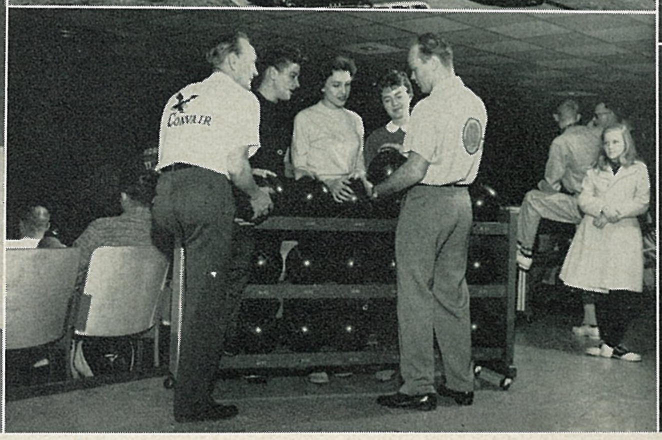
Two scholarships of $1,000 will be given, one each to the high-standing boy and girl. The two boys and two girls named as runners-up will receive $100 U.S. Savings Bonds.













ASTRO IN NEBRASKA—Top left is administrative office (Bldg. 0-1) at Air Force BMD (Offutt-Lincoln) Field Office, Mead, Neb. Astro folk occupy second floor and part of first. Top center is SAC Control Center at Offutt AFB, with Atlas missile in front. Top right is aerial of Boys Town, an Omaha landmark. Lower left, Astro people at costume party. Lower center, Astro keglers W. L. Cordes, Joan Pharris, Gail O'Hanlon, Donna Whitefoot and Jess Taylor take part in Fremont league. Lower right, beautifully wooded parks along river banks provide perfect setting for "beach" parties. Missouri and Platte Rivers flow nearby.

Astro Buildup to Begin At Points Near Omaha

OFFUTT AFB, Neb. — Miles and misconceptions are two frequently faced problems of Astronautics men and women assigned here to activate Atlas missile launching facilities for the Air Force.

Current Astro population is about 260. Next month a buildup begins with a peak of about 700 employees expected by June, according to E. B. Newton, Convair operations manager here.

Like other Atlas missile facilities, launch sites are being constructed in widely scattered areas in remote locales. Linking these points with transportation and communication is a big problem. For instance, to go to each site here where Astro personnel will be assigned by the most direct route requires a round trip of almost 140 miles!

"We can lick the mileage problem with an effective transportation system and exacting schedules," Newton said. "But we need some help in clearing up misconceptions."

Names here tend to baffle the newcomer. While this operation is known primarily as Offutt AFB, it is actually 42 miles from the base. Technically, the name is the Air Force Ballistic Missile Division (Offutt-Lincoln) Field Office at Mead, Neb. (population 400). Local residents have been slow to pick up the new designation, referring to the site as the Nebraska Ordnance Plant, a title and function dating back to World War II.

And Astronautics personnel here receive their mail at Wahoo, Neb. (population 3,500) seven miles west of Mead and 37 miles from Omaha.

Astronautics employees here share a sprawling two-story headquarters building with associate Atlas contractors and Air Force units. The second floor of Bldg. 0-1 is all Astronautics, while some of the ground floor also houses Astro functions. Nearby is Bldg. 0-5, center of industrial relations activities. Other employees work in surrounding buildings, while receiving and material stores operations are some four miles away.

The nearest missile launching facility is Site A, a distance of just over six miles. Site B is near Arlington, Neb. Site C is in Iowa near Missouri Valley and is the closest to Offutt AFB, a distance of about 40 miles.

In addition to having personnel at each of these sites and at the administrative center, Astro will have others at work in a squadron maintenance area on-site at Offutt AFB.

Serving these areas will be a fleet of 79 vehicles ranging from sedans and station wagons to semi-tractors. Weather is a frequent problem. Recent snow and ice storms blanketed the area, making it necessary to equip each vehicle with snow tires and chains. Several jeeps are also equipped with winches for rough going and carry-all vehicles have extra high frames built for rugged terrain.

"When these carry-alls can not operate, then people just aren't going anywhere," said Gordon Eiland, transportation foreman.

Most of Astro's early "settlers" here reside in Fremont (population 17,500), some 15 miles from Mead. Others reside in smaller nearby communities or commute from Omaha (population 300,000) or Lincoln (population 110,000) some 35 miles south.

"There is still some housing left in nearby towns, while others moving here may be forced to live in Omaha and Lincoln," said Larry Failor, chief of industrial relations.

Agriculture accounts for most of the local economy. Omaha is site of the world's largest stock yard and is the second largest frozen food processing center in the nation. It is also the fourth largest railroad center.

Each of the local cities boasts its own recreational facilities and good schools and medical care. Hunting (pheasant, duck, quail, rabbit) is a favorite sport. Local rivers (the Missouri and Platte) as well as lakes provide excellent fresh water fishing.

Astro people here are currently participating in a Fremont bowling league. Plans call for setting up other types of recreational activities as employment warrants.

Key supervisory personnel, in addition to Newton and Failor, are: J. V. Draggie, plant engineering; F. J. Corridon, operation services; Harry McKay, contracts; H. S. Hardcastle, engineering; B. E. Schultz, field operations; H. E. Zehring, cost control; and H. L. Montgomery, communication.

★ ★ ★

OFFUTT AFB — Known today primarily for its role as headquarters for the world-wide operations of the Strategic Air Command, this Nebraska base can trace its history back beyond the turn of the century.

First military units here were infantry troops who later saw duty in the Spanish American War and in the fight against the Philippine insurrectionists. The base was then known as Camp Crook, for Major General George Crook, famed Indian fighter.

During World War I it served as a school for balloon pilots. In 1920 the first flying took place on a graded cornfield. Four years later it became Offutt Field, named for Omaha's first air casualty of WW I, Lt. Jarvis J. Offutt. Between wars government mail service flights constituted flying activities.

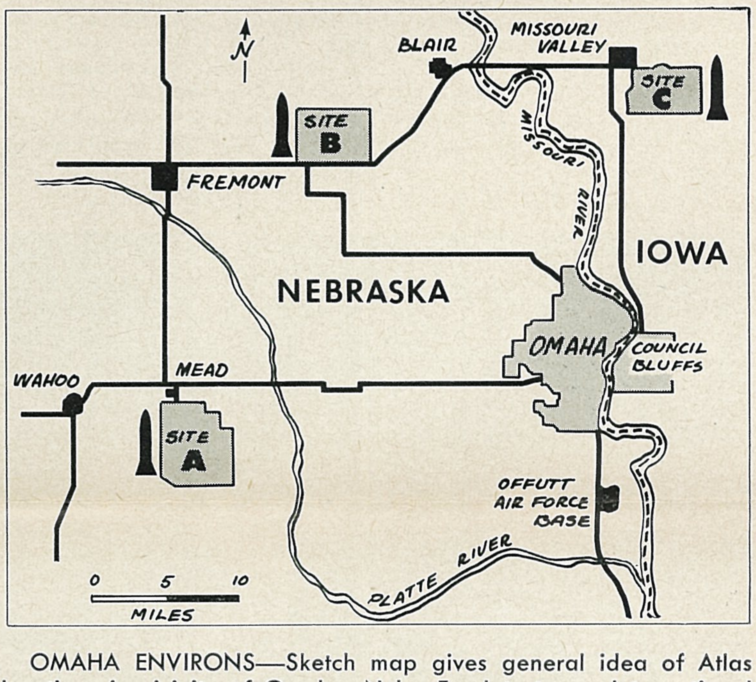
The Martin Co. erected a factory here during World War II building B-26 and B-29 bombers. Following the war, activities centered around reserve flying units.

In 1948 Strategic Air Command moved its headquarters here from Andrews AFB, Md. SAC occupied its present $10 million headquarters building and control center in 1957.

Two sights on the base are familiar to Convair personnel. One is an Atlas missile which is mounted directly in front of SAC headquarters. In addition, a B-36 bomber holds down a key position in a display of former SAC aircraft.



KEY MEN—Astro staff in Offutt AFB area go over construction plans. From left, E. B. Newton, Astro operations manager, B. E. Schultz, H. S. Hardcastle, Harry McKay, F. J. Corridon, J. V. Draggie, L. M. Failor, H. E. Zehring.



OMAHA ENVIRONS—Sketch map gives general idea of Atlas locations in vicinity of Omaha, Neb. For latest complete national locations, see page 8.

Radar Reflectors of Plastic Will Direct Tartar Missiles

Plastic radar reflectors designed for use with Tartar missile installations aboard Navy ships are currently being manufactured under a $200,000 follow-on order by Republic Aviation Corporation.

The contract, from Raytheon Company, runs until late 1960. The order is in addition to a contract announced early last year.

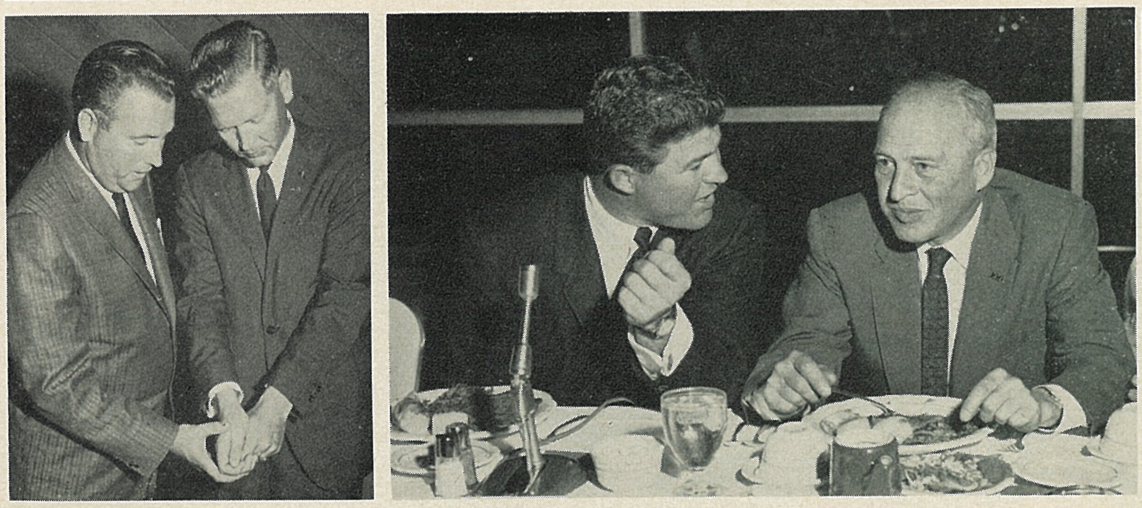
Tartar surface-to-air missiles, designed for use as primary air defense weapons for the Navy's destroyers, and as secondary weapons for larger ships, are being produced for the Navy's Bureau of Naval Weapons at Convair Pomona.

The oval shaped radar reflector, about eight feet in diameter, is constructed of a reinforced plastic developed and formulated at Republic. Austin B. Speed, director of sales for Republic's Special Products and Services Division, said the reflectors, each weighing only 325 pounds, have greater strength for their size than any other plastic reflector manufactured.

The reflectors are designed to withstand a shock load of 160,000 pounds. Other advantages claimed for the reflector are its completely smooth exterior (which prevents ice accumulation), its imperviousness to corrosion and its operational capability in winds up to 100 knots.



COOKIE TREAT—T. J. Sullivan, Convair San Diego assistant manager, gets his box of cookies from Girl Scouts (from left) Lorraine Owens, Susan Karel, Susan Ohman, Kristine Trimlett during annual Girl Scout Cookie Sale, Feb. 12-22. Fathers of Susan Ohman and Susan Karel are both Convair San Diego Dept. 6 men.



COACHING—Convair Golf Club held "pro-guest" dinner coinciding with San Diego Open golf tournament last month and (above) Billy Casper (U.S. Open champion) checked grip for Astro's J. R. Dempsey, while Mike Souchak (who won SD Open) appears to be giving August C. Esenwein (executive vice president) some valuable tips.

Brother and Sister, Flown to U.S., Adopted Into Convair FW Family

Elizabeth and Mark Linnstaedt—aged 3 and 4—have taken the move from West Germany to West Texas in full stride.

They're the newly adopted children of Fay and J. C. Linnstaedt of 3833 Willing. Linnstaedt is a quality control analyst at Convair FW.

The Linnstaedts, who have been trying to get the two youngsters to this country "for some time," were elated when the young brother and sister deplaned.

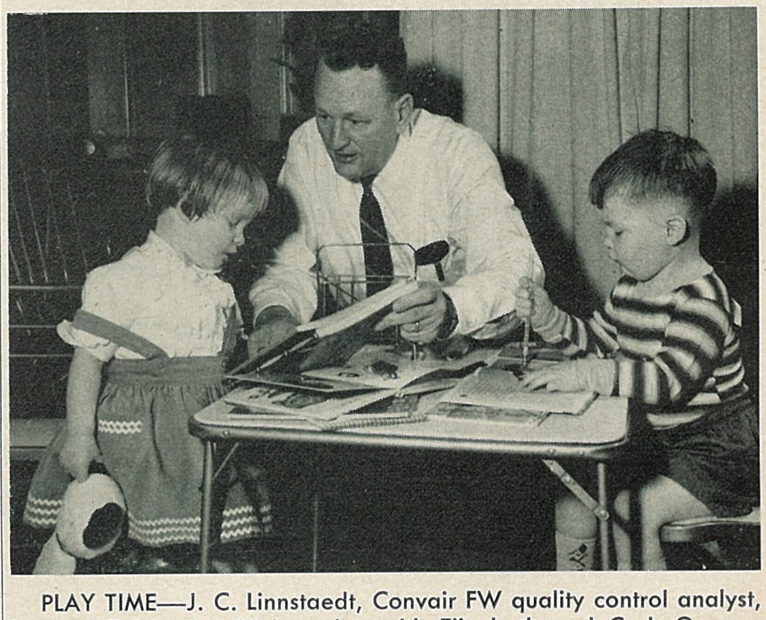
And Elizabeth and Mark have taken to their new surroundings with glee — especially "TV and peppermint sticks."

"Our biggest problem right now is the difference in language," Linnstaedt said. "But we're learning a little German, and they're picking up English quickly."

"Right," echoed Mrs. Linnstaedt, who bemoaned the fact that little Elizabeth almost instantly learned to parrot one of her favorite expressions: "Just a minute."

Mrs. Linnstaedt, incidentally, is well qualified to close the communications gap. She holds B.A. and Master's degrees in library science from Texas Women's College, and a B.A. in history from Our Lady of Victory.

Linnstaedt has made a hobby of working with young people. For the past several years he has served as chairman of a Knights of Columbus 759 committee at St. Teresa's Home for Destitute Children. And before that, he was an active committeeman.



PLAY TIME—J. C. Linnstaedt, Convair FW quality control analyst, has readin' and writin' session with Elizabeth and Carl, German orphans whom he recently adopted.

Hawaii in U.S.

Rare Tropical Plants Thrive at SD In Reproduction of Island Home

John Monks (Dept. 15-6) commutes to Convair San Diego from a "South Pacific island."

Though not located in the Pacific, Monks' home in Poway Valley, some 20 miles from San Diego, is about the closest thing to a tropical island to be found in California.

Surrounding his Hawaiian ranch-style home is one of the finest collections of tropical plants in the state.

"After 11 years of Navy service on Pacific islands, I decided to plant part of those islands at my California home," Monks explains.

And transplant he did, with gusto. Tropical varieties grow in abundance in a greenhouse, under lath, in the house, around the patio, in fact just about any place you care to look.

Although it is difficult to put a price tag on their worth, Monks estimates it would cost $3,000 to replace them.

For Monks, the expense is totaled in terms of "freight and troubles."

"The plants are here despite the advice of some professional nurserymen," Mrs. Monks adds. "They said it would be virtually impossible for the plants to survive the transplanting and abrupt change of climate."

The backbone of Monks' collection is some 15 varieties of croton, a tropical foliage noted for its ornamental value. Monks has more than 150 of the plants. A peek inside his greenhouse is met by clashing croton colors, spectacularly mixed in brilliant hues, predominated by reds, golds, and oranges.

Names for the crotons are derived from their different colors and characteristics. A few of Monks' favorites sport such names as Corkscrew Red, Gold Dust, Orange Duckfoot, Yellow Sword, Indian Blanket and even Canned Sunshine. Still others are named after Hawaiian royalty, such tongue-twisters as Queen Liliokulani and King Kamehameha.

Other rare plants climbing skyward under Monks' care include a South American rubber tree, Rabbit's Foot Fern from the Fiji Islands, Bird's Nest, a native of the Pacific islands, the Heart's Tongue and Western Sword fern. Also blending into the surroundings is a papaya tree, and heart-shaped antheriums with their delicate pink and artificial looking blossoms.

Monks' home blends into the "island" atmosphere perched on a hillside and commanding a view of the picturesque valley.

Monks is considered a gardening authority among his neighbors, for a while published a "green thumb" column in the local valley paper. "Hardly a week goes by," Monks says, "that I don't receive a call from some troubled housewife as to why such and such a plant is dying."

Hundreds of birds call Monks' home their home. He sprinkles liberal quantities of cornmeal around for them, attributes their attachment to the fact that he never uses any type of poisons or sprays.

"No need to," he asserts, "I've never had any kind of bug or insect problem. Perhaps the birds are responsible."



TROPICAL PARADISE—John (Convair SD Dept. 15-6) and Lois Monks transplanted much of South Pacific island atmosphere when they built home outside of San Diego. Monks cares for hundreds of tropical plants growing in greenhouse, around patio and in house itself. Here, Mrs. Monks displays statue of Hoitai, happy Chinese philosopher.

'Sport,' a Roping Pony, Still Spry Despite 29 Years of Active Work

"Sport," 29-year-old roping pony, has returned to his old home with S. A. Mansker, Dept. 74 at Convair Fort Worth, after a 25-year absence.

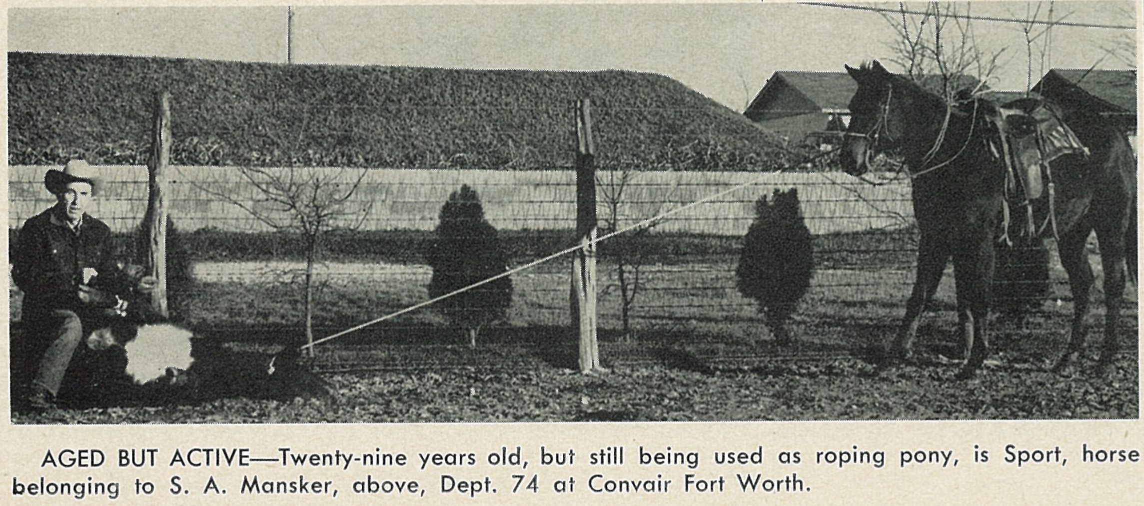
And Mansker made $100 profit on the horse, whose longevity might be attributed to heredity. His sire lived to 27.

Sport first came into the Mansker corral in 1932, when he was little more than a yearling. Mansker bought him for $75.

Mansker rode and roped from Sport for several years before selling him for $175 to a friend in Bonham.

Then followed 25 years — for Sport they were filled with ranch work and rodeo appearances. Until the Bonham man decided to move to Ruidoso, N. M., and he asked Mansker if he would be interested in having Sport returned—free.

So it is that Sport, a real oldtimer in horse years, has returned to Fort Worth, where he's still ridden by Mansker and is also doubling as a "playmate" for Mansker's five-year-old grandchild, daughter of Toke B. Mansker, general foreman in Dept. 81.



AGED BUT ACTIVE—Twenty-nine years old, but still being used as roping pony, is Sport, horse belonging to S. A. Mansker, above, Dept. 74 at Convair Fort Worth.

Wood Roofs For Water Tanks Replaced by Steel, Concrete

New lids—giant economy size—have been built for two 200,000 gallon water tanks at Convair Fort Worth.

After 17 years the old wood roofs are beginning to rot, so they are being replaced with permanent steel frames with concrete decks. The two-month project was completed last month.

According to Shep Lampkin, field engineer in plant engineering, the two tanks are used in conjunction with a two-million gallon tank to maintain adequate water pressure during the day, when the plant uses a phenomenal amount of water.

Supplemental pumps must replace city water in the tanks during the night, especially in the summer when city pressure is lowest.

Lampkin reports daily water consumption at the plant ranges from a summer daytime high of three million gallons to a weekend minimum of 950,000 gallons.



"I can understand your being sick on Monday and Tuesday, but what's this about being marooned on a traffic island Wednesday, Thursday, Friday, and Saturday?"

Orientation Program to Begin For American Airlines on 600

An eight-day orientation program on the Convair 600 jet transport will start next week for American Airlines personnel in Convair San Diego customer service training headquarters.

Termed a planners' course, the program has been developed to acquaint American Airlines key people with salient features of the 600 jet transport, explained L. J. Bordelon, chief of transport service.

A. L. Franzolino, American's staff manager of training and development, worked with Convair SD customer service department in setting up the course to meet requirements of the group. All attending are directly concerned in planning for the support of the Convair airliner. Here to take the course, which begins Feb. 23, will be leaders of such functions as training, ground support, parts, maintenance, and engineering.

"The planner course will familiarize the customer with our training methods and procedures as well as the technical features of the airplane," said Bordelon.

First formal 600 maintenance training course will start for American Airlines in early summer. American has ordered 25 Convair 600s with option on 25 more. Deliveries will start in 1961.

NEWS FROM OTHER DYNAMICS DIVISIONS

General Dynamics Corporation, created in April, 1952, as successor to Electric Boat Company, is composed of seven divisions and a Canadian subsidiary, Canadair Limited, of Montreal, airframe builders. The divisions are:

Convair, head offices at San Diego, Calif., aircraft, missiles, and space systems.

Electric Boat of Groton, Conn., submarines.

Stromberg-Carlson, of Rochester, N. Y., telecommunications, electronic equipment.

Liquid Carbonic of Chicago, Ill., carbon dioxide producer, industrial and medical gases.

General Atomic of San Diego, Calif., nuclear research, development, production.

Electro Dynamic of Bayonne, N. J., electric motors, generators.

Material Service Division, Chicago, Ill., building materials, concrete products and coal.

* * *

Freight Rate Cut Key to Boost For Air Cargo, Says Johnson

NEW YORK — A cut of 16 cents a ton mile in air freight rates could increase the amount of air cargo carried world wide to 25 billion ton miles annually, members of the New York Sales Executives Club were told recently by Earl D. Johnson, president of General Dynamics Corporation.

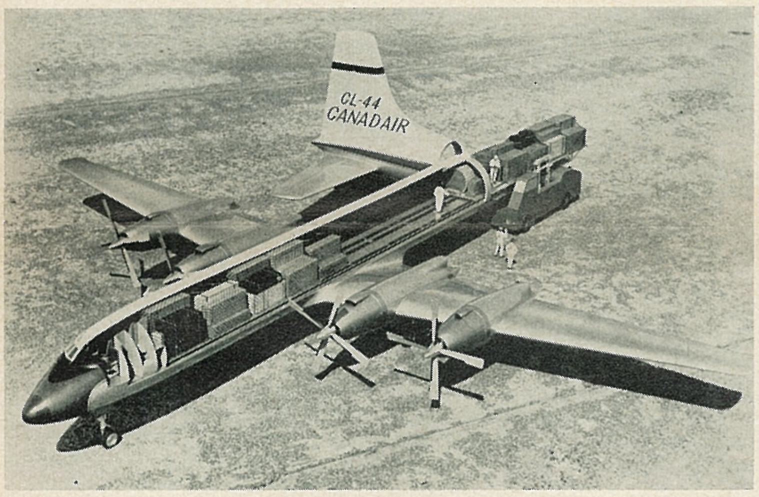
Airlines are now moving about one billion ton miles a year, at rates of 20 to 26 cents a ton mile, Johnson said. If the rate were reduced to ten cents a ton mile, there would be enough shippers willing to use air freight to multiply current business 25 times, he said.

Johnson said aviation is the only major means of moving freight in which major cost reductions are feasible.

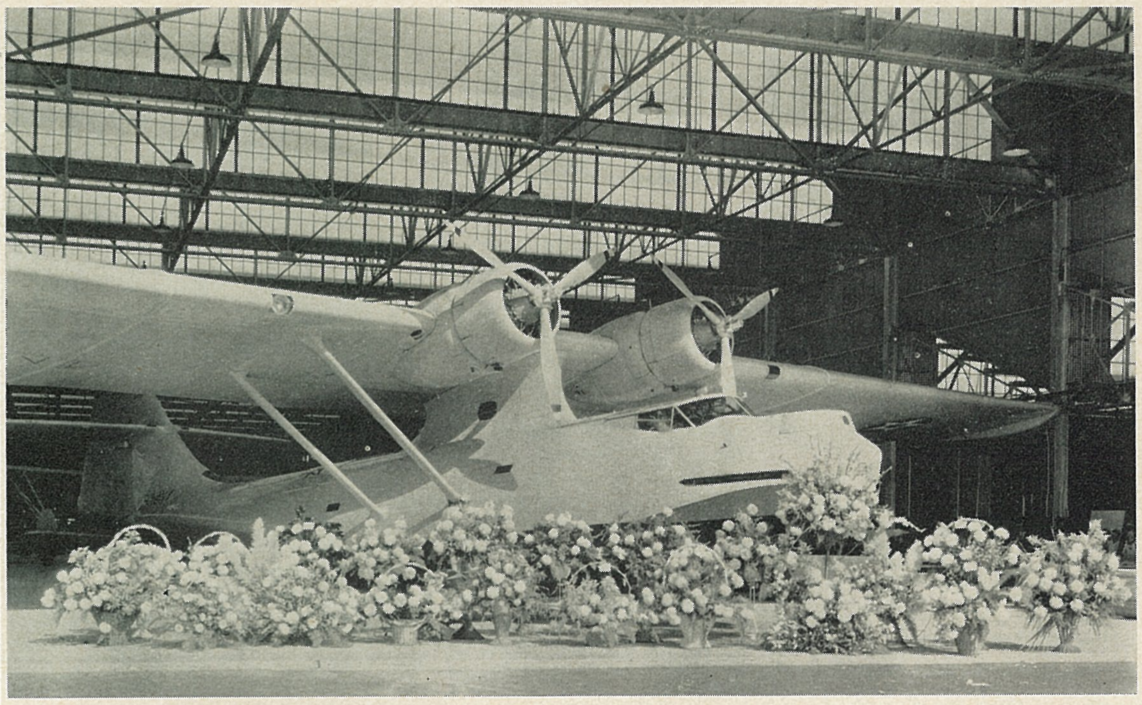
He said that aircraft built specifically for carrying freight and utilizing jet or prop-jet engines will be capable of reducing costs considerably.

He also stated that a "total system" approach to air freight handling could reduce costs considerably, pointing out that in present operations 80 per cent of the time an air freight shipment is in transit is spent on the ground. One method for more efficient ground handling suggested would be automated scheduling of air cargo space.

Johnson described to the audience General Dynamics' CL-44D air cargo aircraft. Equipped with a hinged fuselage tail, the CL-44 can handle large or awkward freight for straight-in loading or off-loading. The swing-tail feature also permits much more rapid loading of general cargo.



CUTAWAY—Model of Canadair CL-44 shows freight loading potential of this swing-tail airplane.



DEDICATION—Flower-banked XP3Y-1 was key attraction at dedication of new Consolidated plant in San Diego Oct. 20, 1935. Company was relying heavily on Navy orders for this aircraft which ultimately became famous as PBY Catalina of World War II days.

Consolidated's Payroll Totaled 874 In 1935 When Plant Was Dedicated

(With this 28th installment of Consolidated Aircraft's continuing history, action shifts to West Coast where company moved to avoid cold weather of Buffalo that hampered operations.)

The San Diego plant was dedicated Oct. 20, 1935, with a public ceremony and open house. Visitors toured an airy factory of structural steel framework; iron, stucco and glass sides; and corrugated iron roof. This afforded 247,000 sq. ft. of space, nearly ten times that of the starting leasehold at Buffalo. The company held an option to lease 40 additional acres of municipal tidelands.

"For 12 and a half years we have striven for this day," Reuben Fleet said in a formal address. "It marks the culmination of a dream for a factory of our own in a city of our own choice." Fleet lauded the community's citizens and institutions and even the San Diego air. "For flying it seems to have a 'body' found nowhere else." Looking to the future, he said:

"Aviation needs aeronautical engines of from 2,000 to 2,500 hp. To develop such (engines) costs millions of dollars and years of tireless effort . . . When such engines are available we expect to build gigantic flying boats that will carry a hundred passengers to Honolulu or across the Atlantic in 12 hours."

(Within less than three years, Consolidated would be building the Model 31 seaplanes around a new Wright Duplex engine rated at 2,000 hp.)

Fleet noted that the payroll totaled 874 employees and predicted that it would increase to 3,000 by the summer of 1936. This forecast was predicated on a huge Navy order for 60 flying boats, received in June while the company was packing to leave Buffalo. The new plane would become famous as the PBY Catalina, but was still known at that time by the designation given the prototype, XP3Y-1.

A week before the plant dedication this newest Laddon (I. M. Laddon, chief engineer) design had lengthened the stride of flying boats by soaring non-stop Oct. 14-15 from Coco Solo to San Francisco Bay, a distance of 3,443 miles, in 34 hours, 45 minutes. The pilot was Cdr. Knefler McGinnis, skipper of the massed P2Y flights of 1934.

The flying boat was a broad-winged monoplane, having the cleanest lines of any seaplane yet designed. A single pair of lift struts connected fuselage to wing on each side, and the tail assembly showed no external braces. Until now, fixed wing floats had increased the parasitic drag of all seaplanes. Laddon designed a retracting float that folded into place as an outer tip of the wing. Thus, the float actually increased lift by a small amount. Exhaust gases were utilized for the first time in a thermal de-icing system. Engine heat, previously wasted, was deflected through a system of internal ducts to warm the leading edges of wing and empennage. Further, the airplane employed the first integral wing tanks. Instead of building separate gasoline cells, Laddon sealed off internal sections of the wing as reservoirs. The weight saving was calculated at a half pound per gallon of fuel capacity—a substantial addition to payload.

The first production PBY was launched Oct. 5, 1936, in the bay where Glenn Curtiss had made the first American hydroplane flight 25 years earlier.

Meanwhile, Consolidated had received a Navy order for 60 additional PBYs and the factory was enlarged. This boosted production area to 543,000 sq. ft., counting an enclosed paved yard where overflow final assembly operations could be conducted in the sunshine.

To finance this construction, directors authorized Consolidated's first issuance of preferred stock in 1936. Sale of 22,976 shares at $50 each realized $1,148,000.

Ultimately, the clipper-hulled PBYs established themselves as the far-reaching eyes of the Navy Scouting Force and demonstrated their potential in a series of massed flights during 1937. The first took place Jan. 28 when (as Time Magazine reported) "Lt. Cdr. William McDade and 80 officers and men of Patrol Squadron VP-6 climbed into 12 huge, low-slung flying boats in San Diego harbor, soared off without ceremony in trim formation toward Pearl Harbor, 2,553 miles away. Next morning, 21 hours, 48 minutes later, Patrol Squadron VP-6 completed its routine task without mishap."

Another dozen winged to Pearl Harbor in April, and on June 21 the first of several massed flights to the Canal Zone was conducted by a 12-boat squadron that covered the 3,087 miles in 27 hours, 58 minutes.

Dynamics Adds New Directors

NEW YORK—General Dynamics has announced the election of Colonel Henry Crown, Hugo A. Anderson and Fred G. Sherrill to the Board of Directors of the Corporation.

They were directors of Material Service Corporation of Chicago which was merged into General Dynamics Dec. 31 as the Material Service Division.

Colonel Crown was one of the founders of Material Service, organized in 1919, and for the five years prior to the merger served as a director and chairman of the board.

Anderson was a vice president of The First National Bank of Chicago until his retirement in 1957.

Sherrill has served as a director and vice president of the J. G. Boswell Company of Los Angeles, Calif., for the past five years.

Supervisors Elected To New EB Council

GROTON — A new Management Council, with a six-man executive committee and a 30-man committee at large, has been established at Electric Boat to represent supervisors.

Purposes of the council are to provide more effective communication among the departments and supervisors, to stimulate ideas for product improvement and to advise management on possible savings through new methods.

Winter Olympics Using Pagemaster

SQUAW VALLEY, CALIF.—Stromberg-Carlson "Pagemaster" paging equipment will be used by officials of the Winter Olympics here this month.

Key officials will carry receivers in their pockets. When the receiver receives a certain coded radio signal it makes a buzzing sound, indicating that the individual is wanted on the telephone. Similar equipment is in wide use in hospitals and manufacturing concerns.

Texans to Get Scholarships

SAN DIEGO—Graduate students of Texas colleges and universities today were offered an opportunity to participate actively in the scientific search for means of harnessing the H-bomb's tremendous power for peaceful purposes.

The Texas Atomic Energy Research Foundation and General Dynamics Corporation announced that they will award six research fellowships this summer to Texas graduate students for work at General Dynamics' General Atomic Division here where the world's first and largest privately financed program in controlled thermonuclear research is under way.

The $10-million program is sponsored jointly by the foundation, composed of 11 investor-owned electric utility companies operating in Texas, and General Atomic Division.

Early Pioneers Attend Banquet For Roy Miller at Retirement

Roy A. Miller, Dept. 6 SD, who retired early last month after more than 33 years in Convair's engineering department, was honored at a retirement party, Jan. 27.

Helping to celebrate the occasion, which was arranged by the structures group at San Diego, were some 120 friends and associates. Many of the guests were early Convair pioneers and members of the "Catalina Club," composed of employees who were with Convair on or before Oct. 20, 1935.

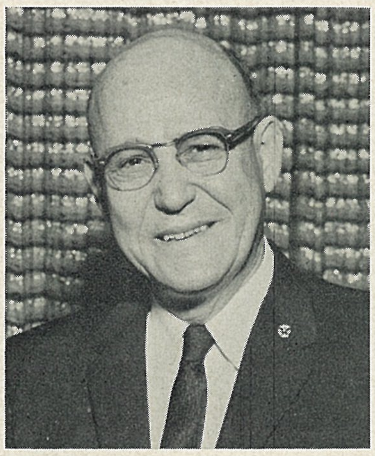
A nostalgic touch was added as the early days in Buffalo, N. Y., were recalled when Miller was one of four men comprising the entire engineering department, under direction of I. M. Laddon, then chief engineer.

Among "early settlers" at the head table were Maj. Reuben Fleet, founder of Consolidated, C. T. Leigh, T. P. Hall, Henry Mandolf and B. W. Sheahan. R. C. Sebold, vice president-engineering, was emcee for the evening.

Miller was presented with a mounted photograph of Consolidated's engineering department force on the last working day before leaving Buffalo for San Diego in the summer of 1935. He also received an FM-AM radio, and a desk set appropriately inscribed. G. Garner Green, chief structures engineer, made the presentation.



REMINISCING—Roy A. Miller displays photo of Consolidated's engineering personnel on day before they moved from Buffalo, N.Y., to San Diego. Shown with him are from left, B. W. Sheahan, L. O. Cederwall, R. C. Sebold, G. Garner Green, Major Reuben Fleet.



MILESTONE — W. A. Schurr, Dept. 6-21, joined the ever increasing circle of 30-year Convair SD men when he received his service emblem and gift of his choice from B. F. Coggan, SD manager.

Log Book Entries

Service Emblems

SAN DIEGO

Service emblems due during the period Feb. 16 through Feb. 29:

Twenty-year: Dept. 22, T. F. McAleer III; Dept. 25-2, M. T. Radovich; Dept. 31, O. C. Banke, L. C. Holland, N. R. Keough, G. O. Turner; Dept. 146, J. C. Wilson; Dept. 188, C. G. Nixon; Dept. 215, E. H. Wallrabenstein; Dept. 270, Z. A. Ridgeway.

Fifteen-year: Dept. 1-22, Anne C. Tribbet; Dept. 6-21, R. C. Lambert; Dept. 25, O. T. Briley; Dept. 31, C. E. Rogers; Dept. 120, E. L. Colliver; Dept. 133, Alex Carrillo; Dept. 144, F. A. Brown; Dept. 145, Edward Dworak; Dept. 188, Ralph Yturralde.

Ten-year: Dept. 1-67, R. C. Wills; Dept. 6, J. W. Bethards, J. M. Silas; Dept. 25, R. H. Noble; Dept. 31, M. P. Jones, Benjamin Martin; Dept. 93, Clarice M. Bowden.

Dept. 102, H. H. French; Dept. 120, Lillian B. Davis; Dept. 145, G. B. Bascue; Dept. 160, J. C. Serrano; Dept. 215, M. G. Golzalez; Dept. 218, Carrie B. Earle; Dept. 233, O. W. Edwards; Dept. 401, R. E. Cummings, M. J. Lawson.

Promotions

Promotions to or within supervision effective Feb. 1:

Dept. 8-4, Industrial Engineering: To systems and procedures supervisor, J. T. Berthelet.

Dept. 97-8, Data Processing: To clerical supervisor, R. L. Reilly.

Dept. 400, Tooling: To tooling general supervisor, A. M. Van Horne. To tooling supervisor, G. F. Lacy, L. L. Stabenau. To production planning supervisor, S. J. Williams.

Retirements

DENBURGER—Andrew A., Dept. 280. Seniority date Nov. 10, 1953, retirement effective Jan. 29, 1960.

HAYWARD — William F., Dept. 25. Seniority date Sept. 1, 1950, retirement effective Jan. 29, 1960.

KIEGLE — Benjamin F., Dept. 123. Seniority date Feb. 2, 1925, retirement effective Feb. 5, 1960.

LUNBECK — Ernest R., Dept. 95-3. Seniority date Aug. 3, 1950, retirement effective Jan. 25, 1960.

MORSE—Frank I., Dept. 400. Seniority date July 23, 1934, retirement effective Jan. 29, 1960.

PALMER — Florence B., Dept. 6-51. Seniority date Aug. 20, 1951, retirement effective Jan. 8, 1960.

PEARCE—Robert W., Dept. 218. Seniority date Sept. 16, 1946, retirement effective Jan. 29, 1960.

POND—Elton G., Dept. 25. Seniority date Jan. 21, 1953, retirement effective Jan. 29, 1960.

RETTKE—Carl D., Dept. 101. Seniority date May 5, 1936, retirement effective Jan. 29, 1960.

TYNER—W. Frank, Dept. 197. Seniority date Nov. 10, 1941, retirement effective Jan. 29, 1960.

WESTWOOD—Roy, Dept. 188. Seniority date Nov. 19, 1947, retirement effective Jan. 29, 1960.

WILBER — Joshua A., Dept. 188-1. Seniority date Dec. 2, 1935, retirement effective Jan. 19, 1960.

Personals

We wish to express our thanks to those who were so kind and thoughtful at the time of the death of Clarence E. Sweazey (Dept. 31). We also thank our Convair friends for their help and floral offerings.

Elva L. Sweazey and family

* * *

I am so grateful to my Convair friends for the many cards, beautiful flowers, and gifts sent to me while I was in the hospital and during my recuperation at home.

Sylvia Jones, Dept. 98-6

* * *

We are deeply grateful to our friends in Convair engineering for their kind expressions of sympathy and gift of beautiful flowers upon our recent bereavement.

Hugh B. Freeman (Dept. 6) and family

Births

CLEGHORN — Daughter, Jennifer Denise, 6 lbs., 9 oz., born Jan. 2 to Mr. and Mrs. J. R. Cleghorn, Dept. 97-6.

FROCKS—Daughter, Judy Leigh, 9 lbs., 2 oz., born Jan. 9 to Mr. and Mrs. John Frocks, Dept. 288. Mother, Penny Frocks, on leave from Dept. 44.

POAT—Son, Andrew Louis, 7 lbs., 13 oz., born Jan. 23 to Mr. and Mrs. Charles L. Poat, Dept. 6.

Deaths

NELSON—Aaron M., Dept. 149. Died Feb. 9. Survived by wife, Josephine; two daughters, one son, a sister, four brothers, and four grandchildren.

PEREZ—Andres, Dept. 25-9. Died Feb. 8. Survived by wife, Margaret, two sons, daughter, four brothers, three sisters, three grandchildren.

300 Jeepsters Attend Rough Riders Outing

Annual Rough Riders Run, sponsored by the San Diego Ridgerunners in conjunction with the Convair Jeep Club Feb. 6-7, attracted upwards of 300 persons in 75 jeeps.

Art Thomas, club spokesman, said jeepsters left Truckhaven on Hwy. 99 at 8 a.m., cut cross-country to the desert oasis at Four Palm Springs, camped out overnight at an oil well in the Borrego Badlands. On Sunday, the group continued to Ocotillo on Hwy. 80.

During the trip, two jeeps flipped off hills, turning over several times. Thomas said neither driver was injured. Another jeep sank in mud almost to the top of the hood.

It took the caravan better than 14 driving hours to cover the 22 miles of desert country. An average of less than two miles per hour!

Along for the "ride," were some 35 women. Participants ranged in age from a 3-year-old boy to a 70-year-old man.

Thomas estimated that 80 per cent of the drivers were from the Los Angeles area. One enthusiast took two days off from work, drove all the way down from Sacramento. Still others hiked over from Yuma.

An important meeting of the club will be held tonight (Feb. 17) at 7 p.m. in the Civil Defense Bldg., Gillespie Field. New officers will be elected.

Toastmasters Club Has Joint Meeting

Astronautics' cafeteria Feb. 8 was the scene of a dinner staged by the Convair Toastmasters Club with members of the Padre Club as special guests.

The Padre Toastmasters include representatives from various 11th Naval District units in the area.

Erv Van Horn of San Diego operating division is president of the Convair Toastmasters.

Entries Open Soon For Bonita Sweeps

Third golf sweeps of the year sponsored by the Convair SD Recreation Association will be held March 12-13 at Bonita.

Entries for the tourney will open on Feb. 24 and close March 4. Reservations should be phoned to ext. 1705, Plant 1.

Ken Wulfemeyer, commissioner, reminded players to set aside dates for the annual Yater Memorial tourney, top Convair medal play tourney.

Record Trials Set For Aeromodelers

Convair SD Aeromodelers will conduct record trials for all PAA-load events at the Clairemont-Mesa Blvd. field on Sunday (March 6).

Gary Witt, club spokesman, said the meet will start at 8 a.m. A high time trophy will be awarded. Modelers establishing world's records will receive a record award from the Academy of Model Aeronautics.

11-Year-Old Bests Average by 98 Pins

Young Sammy Marshall, 11, seems destined for better things in the bowling world, just as soon as she is more experienced. Sammy normally carries a 91 average. Last week she turned in a remarkable 189 game!

The daughter of Armida (Dept. 521-6 Astro) and Sam (Dept. 218 SD) Marshall, Sammy first learned to bowl last November when Astronautics CRA started its Bantam league for children. She and her sister, Kristine, 8, have been regulars in the loop since that time. Sam Marshall still bowls on occasion, although Mrs. Marshall has never tried.



GETTING READY—Convair men will be much in evidence Feb. 27-28 when Mid-Winter Soaring Championship is held at Torrey Pines. Here pair prepare to take off for practice flight. In glider are C. Stark (SD) and D. E. Curtis (Astro). Standing by to assist are K. L. Montgomery, W. S. Carter and M. E. James, all Astro. Photo by Ken Rinker, Astrolens.

Convair Men to Fill Major Roles At Pacific Soaring Championship

Thirty-nine Convair men, 26 from San Diego and 13 from Astronautics, will take active part or work behind the scenes when the 14th annual Pacific Coast Mid-Winter Soaring Championship is staged at Torrey Pines Feb. 27-28.

The event, one of the biggest held each year on the West Coast, is expected to draw some of this nation's top glider pilots, according to Astro's Jim Mason, meet chairman.

San Diego's Ted Sanford will serve as director of flight operations and scoring, while SD's Jim Spurgeon will fill in as master of ceremonies. Many of the other Convair men will handle various phases of the program.

Events include altitude (Convair trophy), bomb drop, aerobatics and spot landings.

Meet hours are 10 a.m. through 5 p.m. Saturday and 10 through 4 on Sunday. Admission is $1 per person which also includes parking.

Astronautics men, besides Mason, taking part are Cezar Banks, Melville R. Barlow, William S. Carter, Doren E. Curtiss, Al L. Harbury, Marvin E. James, Calvin L. Keeler, K. Leon Montgomery, Dr. A. J. Owens, Tom A. Stoops, James O. Thompson and George C. Tweed Jr.

The following are from Convair San Diego and Palmdale: John C. Alley, Robert A. Baker, Ted J. Falk, Robert L. Hendrix, Steve Kecskes, Victor Korski, Paul J. La Frenier, Duke Mancuso, Mamoru Masaki, Lyle R. McClain, Walter Mooney, DeVaughn North, Gordon E. Olson, Frank L. Packard, Rex P. Robinson, Edwin M. Salkeld Jr., Ted W. Sanford Jr., Bert A. Shields, Jim Spurgeon, Carl F. Stark, Robert J. Stokeley, Warren G. Walker, Eugene E. Whigham, John W. Williams, Henry Laue and Russ Torgerson.

MEETING, TRAIL RIDE SCHEDULED BY RIDING CLUB

All Riding Club members and other Convair SD horse-minded persons interested in joining the group are urged to attend an important meeting next Wednesday (Feb. 24) at 7:30 p.m. in the TV Room, CRA Clubhouse, 3401 Pacific Hwy.

C. L. Pogorel, commissioner, said a schedule of events for the coming year will be drawn up at the meeting. Included are trail rides, breakfast rides, horse shows, meetings, etc.

Memberships in the club will be taken at the meeting, Pogorel added. Those attending will have an active voice in deciding the schedule of Riding Club events to be held throughout the year.

First trail ride to be held this year is scheduled for Sunday (Feb. 28), starting at 9 a.m. at the Bradley Bonita Valley Farms. Reservations and money deposits are required prior to the event. To make reservations call the Farms at GR-4-5939.

A buffet lunch will be served after the ride. Additional Riding Club information can be obtained by contacting Luke Barbour, HO-6-6536, or Bruce White, HI-2-5877.

Entries Open For Badminton

Novices will be especially welcome at a joint Convair SD and Astro badminton tournament this weekend (Feb. 20-21) in the Balboa Park Conference Bldg.

Tom Richardson, SD CRA commissioner, said a special bracket is slated for players having their first go at tourney competition. Unseasoned players will have an equal opportunity to win special awards in this category.

Entries will be taken up to start of tourney at 10 a.m. on Saturday. Advance registration, however, is recommended so that match scheduling can be completed.

Convair SD participants should contact Tom Richardson, ext. 2354, Plant 1, or Martha Woodberry, ext. 1245, Plant 1. At Astro, players can register with Les Marr, ext. 1780.

Players will be required to post a $1 registration fee which will be refunded after the tournament. Number of brackets will depend upon the number of entries. Plans call for A, B and C divisions in singles and doubles and possibly a mixed category.

Basketball Tourney Matches SD, Astro

Basketball teams from Convair SD and Astro will play this weekend (Feb. 19-20) in an all-Convair tourney in Pomona.

Two games will be played Friday night. The 7 p.m. tussle matches Convair Pomona and Antelope Valley. Convair SD and Astro will toss baskets in the second tilt.

Winners of the Friday night games will play for the championship Saturday. Friday night losers will play for third place in the second Saturday game.

Ramona Oaks Trailer Goal

Ramona Oaks will be the destination Feb. 27-28 when the Astro Travelers point their trailers toward the first mountain outing since the fall months. Winter trips have been to desert areas.

The gathering will also mark the eve of the group's first birthday. One year ago next month the owners of five travel trailers got together to form the group under Astronautics CRA sponsorship. They invited San Diego operating division employees to join them and currently list 18 active members.

Recent additions to equipment used by all making the treks are a portable generating plant for power, folding aluminum tables and other similar items.

Regular Traveler meetings are held at 7:30 p.m. the first Tuesday of each month in the Astronautics reception center (Bldg. 2). All owners of towed trailers are invited to take part, according to Art Wrightson, CRA commissioner.

Astronomers Slate Films at Meetings

Members of Convair SD's Astronomy Club have scheduled meetings during February and March at the CRA Clubhouse, Gillespie Field, starting at 8 p.m.

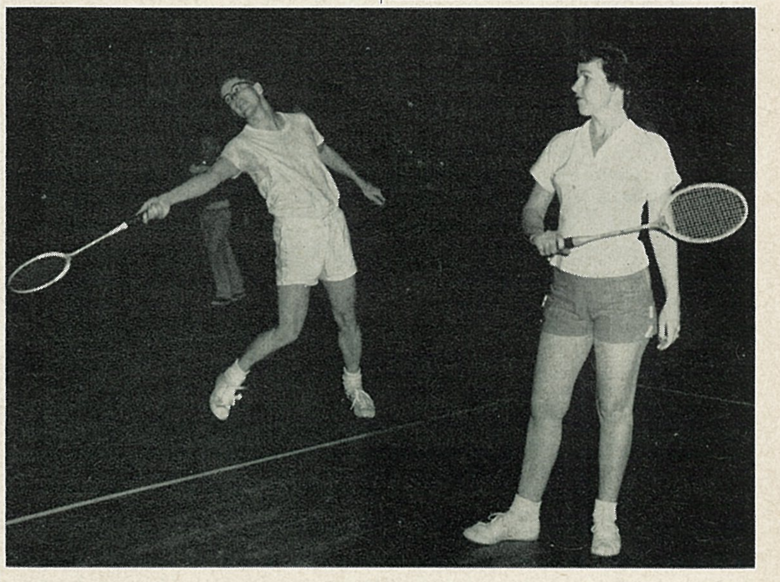
Keith Sears, commissioner, said two short films will be shown at a meeting this Friday (Feb. 19). They are the "Speed of Light" and "How Many Stars." Visitors are invited to attend.

Films entitled "The Solar Family" and "A Trip to the Moon" will be screened at the March 18 meeting.

Art Bunge Receives City Sports Award

Art Bunge, veteran Convair SD softball pitcher, received a Breitbard Athletic Foundation award recently at the 13th annual "Parade of Stars" luncheon at the U. S. Grant Hotel.

Bunge played for both Convair SD teams and the La Mesa Big Shots during the past season. He twirled 65 consecutive scoreless innings, including five no-hit, no-run games in a row. Bunge's team won the San Diego County championship and the South Pacific Amateur Softball Association championship.



PRACTICE SESSION—Convair SD and Astro badminton tournament will be Feb. 20-21 in Balboa Park Federal Bldg. Practicing up for tourney play are Bill Johnstone (SD Dept. 6) and Kathleen Marr (wife of Les Marr, Dept. 550, Astro).





RECRUITS—Special events for women and juniors are making Convair's Gun Club a family-participation activity. In left and center photos, Jack Swank and Ezra Johnson, SD and Astro commissioners respectively, instruct children. At right are some of women at recent shoot: (bottom row, from left) Mary Miller, Sandra Harrison, Barbara Slater, Violet Sheppard; (top row, from left) Doreen Manning, Jayne Davis, Willadine Isabell, Emma Lee Swank, Elaine Schuleter.

CRA Calendar

(Convair SD Recreation Association has some 40 activities in operation. For information on SD sports, call CRA headquarters, ext. 1245, Plant 1.)

★ ★ ★

AEROMODELERS — Record trials for PAA-load events at meet Sunday (March 6), 8 a.m., Clairemont-Mesa Blvd. field.

ARCHERY CLUB — Meeting Thursday (Feb. 18), 7:30 p.m., CRA Clubhouse, Pacific Hwy.

ASTRONOMY CLUB — Films to be shown at meeting Friday (Feb. 19), 8 p.m., CRA Clubhouse, Gillespie Field.

BADMINTON — Championship tourney Feb. 20-21, Balboa Park Federal Bldg. Entry blanks available at employee services.

BOWLING — Annual championship tourney March 5-6, 12-13, and 19-20 at Pacific Recreation. Entry blanks available at employee services.

BRIDGE CLUB — Next session Tuesday (March 1), 7:30 p.m., Hotel Barcelona, Fourth and Juniper.

CAMERA CLUB — Meeting Monday (Feb. 22), 7:30 p.m., Photo Arts Bldg., Balboa Park.

DELTA DIVERS — Meeting Tuesday (Feb. 23), 7:30 p.m., Balboa Park Conference Bldg.

GLIDER CLUB — Mid-Winter Soaring Championships Feb. 27-28 at Torrey Pines. Meet hours 10 a.m. to 5 p.m. Saturday; 10 a.m. to 4 p.m. Sunday.

GOLF — Entries open Feb. 24, close March 4, for SD CRA sweeps March 12-13 at Bonita.

ICE SKATING—Convair night every Thursday; discount rates between 6:30 and 8 p.m. at Iceland, 6055 Lake Murray Blvd.

JEEP CLUB — Officer election at meeting tonight (Feb. 17), 7 p.m., Gillespie Field Civil Defense Bldg.

JUDO—Workouts every Thursday, 7:30 p.m., CRA Clubhouse on Pacific Hwy.

MOVIES — Reduced-price movies each Tuesday night at Academy Theater, 3721 University Ave. Feb. 23—"Operation Madball," and "Long, Long Trailer." Admission: adults 25¢; children 15¢.

PISTOL CLUB — Next shoot Sunday (Feb. 28), 9 a.m., San Diego Police Pistol Range, Federal Blvd. and Home Ave.

RADIO CLUB — Meeting tomorrow night (Feb. 18) at 7:30 p.m. in Harbor Drive headquarters.

RIDING CLUB — Meeting Wednesday (Feb. 24), 7:30 p.m., TV Room, CRA Clubhouse, 3401 Pacific Hwy. Trail ride Sunday (Feb. 28) starting 9 a.m. at Bradley Bonita Valley Farms. For reservations call GR-4-5939.

SQUARE DANCING — "Sadie Hawkins" dance Saturday (Feb. 27), 8 p.m., University Heights Community Center, 4044 Idaho St.

STAMP CLUB — Meeting 7:30 p.m. Thursday (March 3), Conference Bldg., Balboa Park.

SWIMMING — Free family swim night Saturday (March 5), 7-9 p.m., Mission Beach Plunge Tickets at employee services.

WOMEN'S ACTIVITIES—Registration open at employee services for beginning charm school course scheduled to start March 2.

CRA Sports & Recreation Convairiety

SD Hoop Squads Pacing Play in Three Leagues

Convair's Industrial A League basketball entry last week ran their record to four straight wins to nail down the first-round championship and Convair Tool Manufacturing was tied for first place in the Metro League with Monroe Clark Insurance.

Convair is assured of no less than a second-place finish in the Industrial League. If the SD hoopsters are victorious in the second round of play they will be undisputed league champions. Should they take less than first in the second round a play-off game will decide the championship.

In the Metro League Tool Manufacturing is playing games "close to the belt." They squeaked past Calvary Baptist 48-47, won another game, 48-42.

The league championship may well be decided tomorrow evening when the Convair squad meets Monroe Clark in a battle for first place on Court 2 in the Balboa Park Muni Gym at 9.

In shop league competition, Convair SD's Dept. 6 Physics team climbed into a first place tie with idle Dept. 6 Electrical by running over Dept. 603 Tooling 51-20. 880 Jets defeated Dept. 15 Service Parts 57-30. In another contest Dept. 280 Mockup beat Dept. 97 Tabulating 38-29.

Convair SD girls' hoop squad continued to dominate city play last week, pushing their record to six wins without a loss.

The Convair gals found "easy pickings" against Rohr and Christ Lutheran teams. Rohr was bounced 77-20 and Christ Lutheran fell 78-46. In the latter game forward Joyce Currie set a scoring record as she accounted for 37 points. Also in double figures was forward Jean Todd with 24 points. Irene Dionne popped in six free throws without a miss.

Against Naval Training Center, however, the Convair team was stretched to the limit before gaining a 41-39 decision in a double overtime. At halftime the score was 22-22, at end of game 34-34, and 38-38 after the first overtime.

Rockhounds Close Shack on Mondays

Monday evening sessions in the Rockhound Shack on Pacific Hwy. will be discontinued after Feb. 22, Danny Whorton, commissioner, reports.

"Recent attendance has not justified opening the Shack three evenings a week," Whorton said.

The Shack will continue to be open on both Tuesday and Wednesday evenings, from 7-9 p.m. Swing-shift personnel can make use of the facility on Tuesday afternoons, between 12:30 and 2:30 p.m.

The Tuesday and Wednesday schedule is expected to fill the current demand for grinding, polishing and finishing stones. Instructors will be on hand at all sessions.

Next field trip for members of the CRA Rockhounds will be held in mid-March to the Rainbow Ridge area, Whorton added. Dates will be announced later.

AUCTION PLANNED BY SD STAMP CLUB

Auction of "high value" stamps will highlight a meeting of the Convair SD Stamp Club Thursday (March 3) starting at 7:30 p.m. in the Conference Bldg., Balboa Park.

Crosthwaite Delta Diver Commissioner

Gil Crosthwaite, veteran CRA commissioner at Convair SD, will assume additional duties as commissioner of the CRA Delta Divers, replacing Tom Richardson.

The shift in responsibilities will allow Richardson to devote more time to CRA's badminton activity, of which he remains commissioner, according to J. K. Field, SD chief of employee services.

Crosthwaite said monthly activities for the Delta Divers will be planned by club members through their officers. Included are dives, awards, meetings, etc. Crosthwaite will act primarily as coordinator between the club and the CRA Council.

Officers of the club are Allen Jones, president; Derek Walton, vice president; Harry Ruscigno, treasurer; Cynthia Casebolt, secretary; and Bob Mitchell, entertainment. Jones can be reached at ext. 2909, Plant 1.

IRC to Stage Fashion Show

"Calendar Capers," spring fashion show sponsored by the Industrial Recreation Council of San Diego, will be held March 29 at 8 p.m. in the Palm Room of the U. S. Grant Hotel.

Martha Woodberry, commissioner of women's activities at Convair SD, said a limited number of tickets will be available at employee services, both plants, starting today. They are priced at $1.25 each.

The show will feature fashions from the turn of the century to present spring styles. Members of the San Diego Horseless Carriage Club will be among models. Dessert will be served and door prizes awarded.

The event is the second to be sponsored by the council. Last year a capacity crowd was in attendance.

Extra Events for Women, Juniors Sponsored by SD, Astro Gun Club

Men still maintain a majority but they are slowly giving way to a growing number of women and children in activities of the Convair Gun Club.

The Gun Club is a joint venture sponsored by CRA at both Astronautics and San Diego.

Feb. 7 was set aside as a special day for women and juniors to take part in a special shoot. The event drew about 12 women and 12 juniors, ranging in age from eight years upwards.

SD and Astro winners in skeet and trap events were Evelyn Beckett, Jerry Cox, Steven Swank and Jim Gibbons. In rifle competition Willadine Isabell, Barbara Slater, Keith Kell and Sandra Harrison won certificates.

"The event was such a success we are contemplating additional shoots of this nature on a regular basis," said Ezra Johnson (Astro) and Jack Swank (San Diego), CRA commissioners.

In addition to these special shoots, hunter safety courses for juniors are offered throughout the year. Currently, some 37 youngsters are taking part in the program.

Regular Gun Club meetings are staged at 7:30 p.m. the second Tuesday of each month. Competitive shoots are held the first Sunday of each month with the ranges open for practice shooting each Sunday. All activities are centered in a special area at Gillespie Field, El Cajon.

Considered one of the top layouts in Southern California, the area includes facilities for trap, skeet and small bore rifle competition, as well as supporting clubhouse and smaller structures.

Cost for targets is 50 cents per round. Shells, available at the site, range from $1.90 (for reloads) to $2.35 per box. Reloading facilities are available. A limited number of guns are available and experienced club members offer their services as instructors.

Further information is available from Johnson at ext. 2283 at Astro or Swank at ext. 1161, Plant 1, San Diego.





OLD TIMES—CRA Hoedowners' "Old Timers" dance last month was well attended with over 100 squaring off throughout evening. In center photo is Hoedowners' president, Chuck Svendsen, and wife, Lucille. Next party night will be "Sadie Hawkins" dance Feb. 27.

Charm School Entries Open

Beginning charm school registrations will be accepted from Convair SD women, wives and daughters until Feb. 24, Martha Woodberry, CRA commissioner of women's activities, said this week.

The class will start March 2 in the Balboa Park House of Hospitality and continue on a Wednesday evening schedule for six weeks between 7 and 9 p.m.

A fee of $8.50 per person is the only charge for the course and must be paid at the time of registration. CRA subsidizes the course for SD women.

Edith Antelline, SD charm school director, will instruct in fundamentals of good grooming, diet and nutrition, figure analysis, posture, business and social etiquette, make-up and hair styling, and basic wardrobe instruction.

Applications may be turned in at employee services, either Plant 1 or 2; Rose Canyon, office of Virginia Cannon, ext. 2125; Fordham St., office of Bessie Cooper, ext. 100.

Choralaires Couple Will Go to Altar

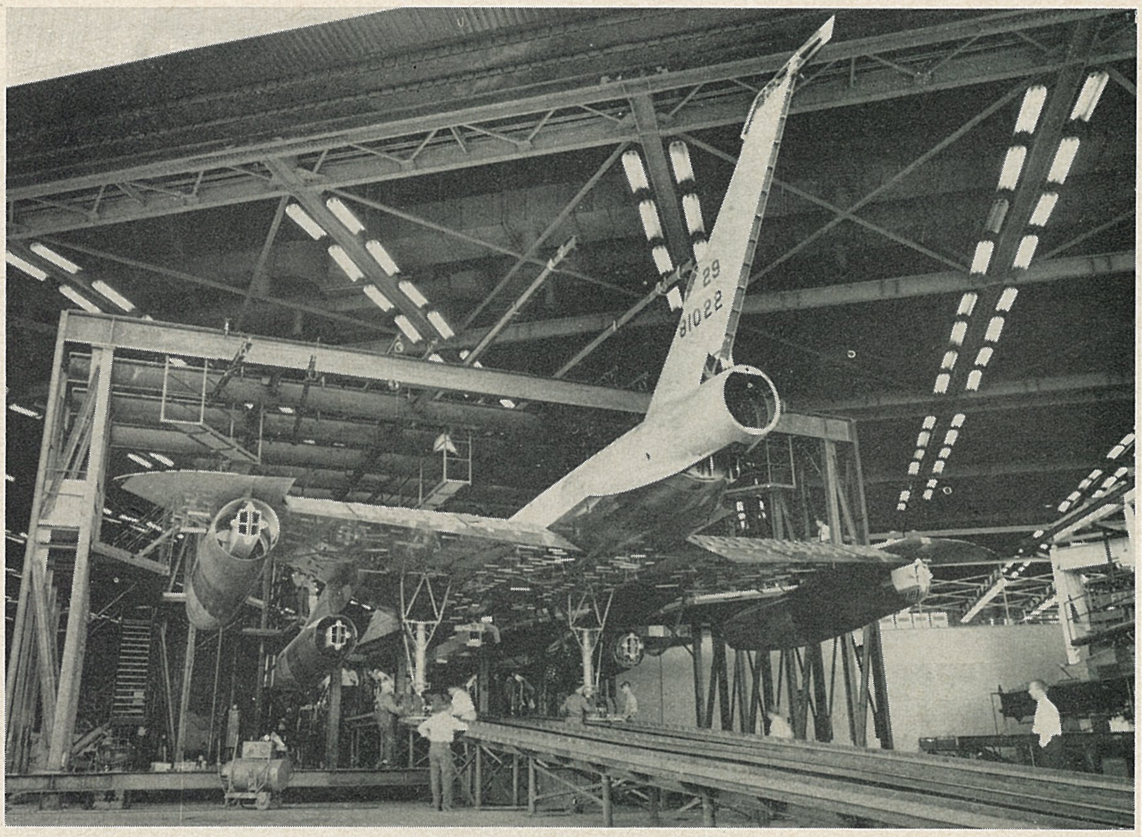
A romance which blossomed in the Choralaires, Convair SD's popular singing group, will culminate in the wedding of Ed Warns, Dept. 7, and Jeanne Ofenstein, Dept. 3, Feb. 19. They will be married in the chapel of the Council of Churches, San Diego.

DEADLINE FRIDAY FOR KEG TOURNEY

Last day for registration in the annual Convair SD plant championship bowling tournament is this Friday (Feb. 19), Jim Hayman and Mike Brooks, co-commissioners, report.

Tourney dates are March 5-6, 12-13 and 19-20 at Pacific Recreation. The early deadline has been posted in order to give members of the tourney committee sufficient time to process entries and firm schedules.

Entry blanks can be obtained from employee services, Plants 1 and 2, and from league secretaries. They must be returned, along with entry fee, no later than this Friday.



TORTURE CHAMBER—B-58 Hustler No. 29, loaded with weights for fatigue tests, is moved into stress jig which will hold airplane during test series at Convair FW.

B-58 Enters Structure Fatigue Test to See What it Can 'Take'

Just how much can a good B-58 take?

This is a question to be answered after a series of strenuous structural fatigue tests, set to begin in March under direction of Convair Fort Worth test lab.

Airplane No. 29 was put into the "torture chamber" recently and fitted with hydraulic loading cylinders which will simulate stress conditions.

W. M. Walker, project test engineer, says the fatigue (or cyclic loading) tests will simulate stresses an airplane could receive in vertical and lateral gusts, maneuvers, taxi, and landing.

Repeated unusual stress during flight can measurably weaken airframes, so the Air Force has specified forces the B-58 will have to stand.

Convair test engineers will apply stress over all parts of No. 29, equalling what the ship will undergo in actual flight — even though some of the conditions may be out of the ordinary.

SECRETARY TAYLOR VISITS FW PLANT DURING TEXAS TOUR

The Hon. Phillip B. Taylor, Assistant Secretary of the Air Force, (Materiel) visited the Convair Fort Worth plant during a recent tour of several Dallas-Fort Worth area facilities.

Frank W. Davis, vice president-FW manager, hosted Taylor during a plant tour and luncheon.

Accompanying the assistant secretary were Don Jackson, deputy for materiel programs; A. J. Racusin, deputy for procurement and production; and Col. R. B. Uhle, Secretary Taylor's executive officer.

Four More Operational Atlas Bases Approved For a Total of Eleven

Fifteen locations in 11 states from coast to coast and border to border are now involved in or destined to become instrumental in the Atlas weapon systems program.

Which means Astronautics employees will, in time, be assigned to each of these points for varying periods of time.

The Air Force recently released the locations of four additional operational bases slated to receive the Atlas as a weapon. They join seven other previously-announced operational installations, two training bases and two test bases. Not included are Sycamore Canyon and Point Loma Test Sites in the immediate San Diego area.

The new operational bases are at: Roswell, N. M. (Walker AFB); Abilene, Tex. (Dyess AFB); Altus, Okla. (Altus AFB); and Plattsburg, N. Y. (Plattsburg AFB).

Previously announced operational bases are at: Cheyenne, Wyo. (Warren AFB); Omaha, Neb. (Offutt AFB); Lincoln, Neb. (Lincoln AFB); Salina, Kan. (Schilling AFB); Topeka, Kan. (Forbes AFB); Spokane, Wash. (Fairchild AFB); and Lompoc, Calif. (Vandenberg AFB). The latter is a combination operational and advanced training base for ballistic missile crews.

Individual missile training will be performed at Wichita Falls, Tex. (Sheppard AFB) and Rantoul, Ill. (Chanute AFB).

Engineering test sites are at the Air Force Missile Test Center, Cape Canaveral, Fla., and the Missile Static Test Site, Edwards AFB, Calif.

Astronautics personnel are currently assigned to most of these bases. Numbers range from over 1,000 at AFMTC and Vandenberg AFB down to one or two men handling surveillance chores.

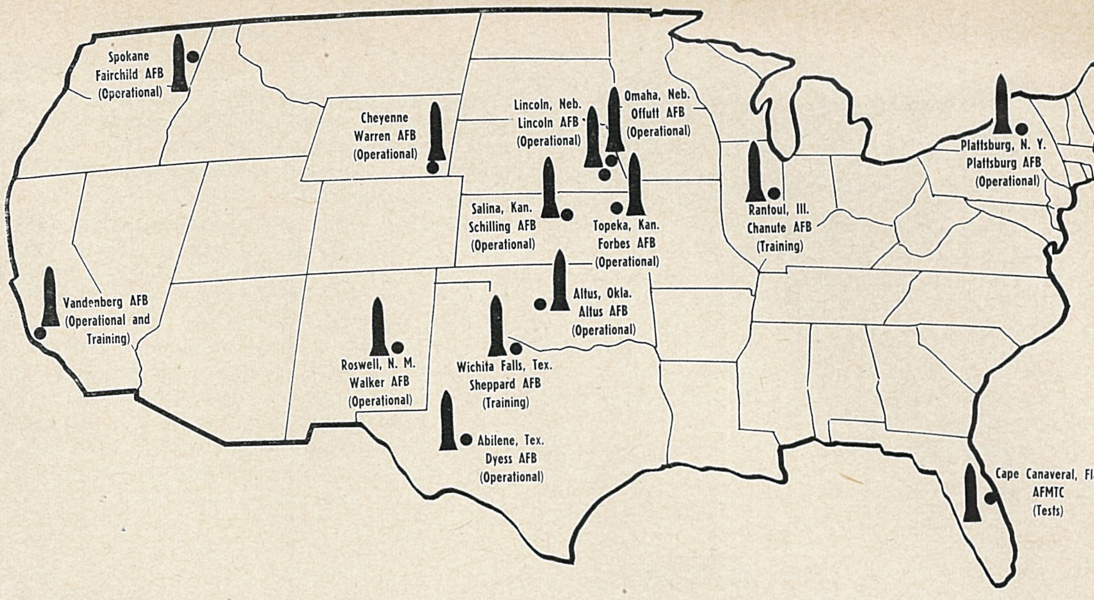
Although Vandenberg AFB has operational capabilities, Warren AFB is the initial base to fall under the category of fully-operational. There are over 775 Astro people on hand at Warren at present. Next to build up to peak employment will be Offutt AFB, now approaching the 300-person employment mark. Subsequent build-ups will be noted at each base as missile launching facilities are readied for activation.

Additional information also accompanied the announcement of the new operational bases. For instance, bases will have a single Atlas missile squadron with the exception of Warren AFB, earmarked for three squadrons. Each will have about 700 military personnel. They will be stationed at the bases involved and commute to launching sites which are normally located in remote areas ringing the base.

The four new Atlas bases will have 36 missile launching sites, nine to each base. Technical construction is expected to cost about $47 million at each base with work to require some 24 months for completion.

Areas of responsibility for these bases within Astronautics fall into three groups.

Besides San Diego area test sites, three of the off-site bases fall under the heading of engineering test sites, the responsibility of W. W. Withee, assistant chief engineer-test. They are Vandenberg AFB, AFMTC and MSTS. Training bases (Sheppard AFB and Chanute AFB) are responsible to E. A. Reynolds, manager of product support. Operational bases and their activation is assigned to base activation department headed by A. P. Higgins.



GROWING—Newly announced bases which will be built for Atlas missile are shown on this map, along with bases previously announced. Majority are to be operational.

Convair SD and Astro Men Take Lead Roles in Engineers' Week

Major roles are slated for Convair products and Convair speakers when National Engineers' Week (Feb. 21-28) is observed in San Diego.

Highlighting displays in the Balboa Park area will be exhibition of a modified Convair Atlas. Visitors will be able to walk through the thrust and booster section, see first-hand the inside of the missile.

The Atlas will be on display starting the evening of Feb. 26, and all day on Feb. 27 and 28 on the parking lot in front of the Balboa Park Conference Bldg.

In the Conference Bldg. itself, some 30 to 50 displays will be open to the public. Included will be a Ryan X-13 Vertijet, Astronautics mockup of a space cabin, and a gondola from the Trieste bathyscaphe.

On Feb. 27-28 technical films produced by California missile and aircraft manufacturers will be continuously screened in the Puppet Theater, Balboa Park.

Three Convair speakers will appear at the Fifth Annual Industrial Engineering Seminar Feb. 22 in the Music Hall at San Diego State College.

They are Dr. C. L. Critchfield, Convair director of scientific research, who will discuss "Science is All Around Us"; Dave Acker, Convair SD manager of industrial engineering, who will speak on "Evolution of Industrial Engineering"; and J. K. Davant, Astro manager of industrial engineering, whose theme will be "Industrial Engineering in Aircraft Manufacture."

Dinners will launch and climax Engineers' Week.

A student-teacher dinner will be held Feb. 19 at 6:30 p.m. in the University of San Diego Science Bldg. Principal speaker will be Mortimer Rosenbaum, chief engineer at Convair Astronautics. His subject will be "Men, Machines and Success." Tickets for this Friday's dinner can be obtained by contacting J. G. Morones, ext. 1241, Astro; or C. L. McMenamy, ext. 2070, Plant 1.

Climax to the engineering observance will be a banquet in the Balboa Park Club on Feb. 26. Fred Hall, director of management control for Aero Jet General Corporation, will be main speaker.

Pods, Pylons Parts Shipped

Final parts of two Convair 600 test pods and pylons were shipped from the Convair San Diego plant to the Edwards AFB test site the first of this month.

The test articles, under construction since December, in the new pod and pylon area in Bldg. 4, Plant 1, will be installed on a flight test plane during a General Electric Co. test program. The CJ-805-21 aft fan engines which will power the 600 will be installed in the test pods on the RB-66, two-engine AF reconnaissance bomber, leased by General Electric for engine testing.

Delivery of components of the first 600 pods and pylons has been under way during the last month. Last major piece completed in Dept. 140 pod and pylon assembly department was the nose cowl for the second pod.

Assembly of production 600 pods and pylons in the Convair SD plant will begin in the near future, said F. E. Grossher, Dept. 140 superintendent.

Convair Men Help With Band Program

Three Convair SD and Astro men Feb. 5 helped plan a special program in conjunction with the 35th anniversary party of the San Diego Bonham Brothers Boys' Band.

Co-chairmen of the event were R. H. Gilliland, SD chief of quality control reliability, and D. R. Archibald, Astro manager of quality control. F. A. Ford, Astro chief of preliminary design, spoke on "Space Vehicles Through 1975."

Avensa of Venezuela Will Buy 880-M, Short Landing, Takeoff Capability

Avensa of Venezuela has purchased a Convair 880-M jet airliner equipped with leading edge wing slats for shorter landing and takeoff distances.

The announcement was made last week in San Diego by J. V. Naish, president of Convair, and in Caracas by Andres Boulton, president of Aerovias Venezolanas, S. A.



ATTRACTIVE—Showing Avensa's attractive striping, is this photo of model of 880. Avensa, known formally as Aerovias Venezolanas, S.A. of Venezuela, has ordered an 880-M.

Naish said the airplane will be delivered in March, 1961.

Boulton said the 880 will be used on Avensa's 1,350-mile Caracas-Miami run, and on the 1,780-mile flight from Maracaibo, Venezuela to New Orleans, as well as the 320-mile hop from Caracas to Maracaibo.

The Avensa 880 will be equipped with full over-water provisions, seat a total of 93 persons including 36 first class and 57 in five-across coach. The first-class seating arrangement includes a six-place club area.

The 880 will be powered by four General Electric CJ-805-3B pure jet engines, each delivering 11,650 pounds of thrust. The 880 is the world's fastest jet transport.

Avensa operates a fleet of DC-6Bs, Convair 340 and 440 twin-engine transports, and Fairchild F-27.



ELECTRONICS EXPANSION—At left, B. L. Shaw and S. G. Zimmerman of SD electronics assembly consult with George Greim of industrial engineering in newly-completed addition to Convair SD electronics manufacturing area in Bldg. 4, Plant 1 as workmen finish final details before first moves. Center shot shows Edith Arnett and Jennie Olivas, electronic assemblers, framed by baskets as they wire electronic components in new location. At right (from left) Mary Holden, Merla Thompson, Geraldine Fay, Grace Gleaton, Anne Smith, Danquin Woods, Aline Desilets, and Glen Bair, leadman, unpack equipment. Story on page 2.

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SAN DIEGO, POMONA, ANTELOPE VALLEY, VANDENBERG AFB, CALIF. — AFMTC, CAPE CANAVERAL, FLA., FORT WORTH, TEX.

Tom Lanphier Resigns; Top Men Voice Regret

After nearly nine years as a Convair executive, Thomas G. Lanphier Jr. resigned last week for personal reasons, J. V. Naish, Convair president, announced.

Resignation of the Convair vice president and assistant to the president will be effective March 15.

"It is with deep regret, both personal and corporate, that I accept Mr. Lanphier's resignation," Naish said. "During his long association with Convair he was intimately associated with and made outstanding contributions to successful development of the Atlas, F-102, F-106, and B-58 programs.



Tom Lanphier, pictured symbolically with F-102 flight line in background.

"Mr. Lanphier had a distinguished career as an Air Force pilot in World War II," Naish added. "He subsequently served as a special assistant for research and development to the Secretary of the Air Force, and

> Tom Lanphier has rendered exceptional service both to Convair and to General Dynamics. I accept his decision to leave with deepest regret.
>
> Frank Pace Jr.,
> Board Chairman,
> General Dynamics Corporation.

in recent years has occupied the presidency of the Air Force Association and the National Aeronautical Association. This unusual combination of experiences in all phases of air power uniquely qualified him for the responsible assignments he so effectively fulfilled on the Convair team."

Lanphier flew more than 100 combat missions in the South Pacific and shot down seven Japanese planes. Later, as director of fighter operations for the 2nd Air Force he flew combat missions in the European theater. Among his decorations are the Navy Cross, the Silver Star and Cluster, and the Flying Cross.

From May, 1950, Lanphier served as special assistant to W. Stuart Symington, chairman of the National Security Resources Board. He resigned from the board in 1951 to join Convair.

* * *

Lanphier's Parting Statement:

Nationally and internationally known as an outspoken supporter of strong U.S. defenses, this was Lanphier's statement following announcement of his resignation:

"As I understand democracy, an American who sincerely believes the nation is in danger, must in good conscience say so. In this vein, I feel strongly about what I believe to be the administration's underestimation of the Soviet military threat for the next three years. And I feel equally strongly about its concurrent overestimation of the strength and survivability of our own defenses during that same period.

"While I realize that many don't agree with me, I feel we are well into, if not already past, that critical moment when our nation can still do something about maintaining a position of material strength from which to continue to work effectively for some measure of peace and freedom for ourselves and our children.

"This winter may be our last chance to so act. Next winter could well be too late.

"As an individual, I want to continue to exercise my rights and privileges as an American citizen to criticize my government, particularly in the area of defense where I feel I have some experience as basis for valid comment.

"I want to do this without being factored as a 'missile salesman' and without implying endorsement of my views by the organization which employs me.

"Therefore, as of March 15, I am leaving Convair, a company of men and women with whom I have for the past nine years been proud to be associated in the significant contributions they have made and are making to the national defense."

'59 President's Award Goes To Jack W. Cox

Jack W. Cox, foreman in Dept. 170, was awarded the President's Award for 1959 at the Feb. 17 meeting of the Convair SD Management Club.

Convair President J. V. Naish termed the award the "most significant and meaningful" ever made at any Convair operating division.

Naish touched briefly on Convair SD's present business climate, emphasized the need for "more engineering ingenuity and continued cost reduction activities."

"When Convair San Diego works on a straight fixed-price basis, we stand to lose 100 cents or gain 100 cents on every dollar," Naish said. To maintain a solid business attitude, he added, renewed efforts are necessary in order to produce products "cheaper, better and quicker."

Naish said Cox's CIP contributions were the "most outstanding" of the 20 candidates eligible for the award. Cox's savings totaled $197,000, the largest figure tallied by any candidate.

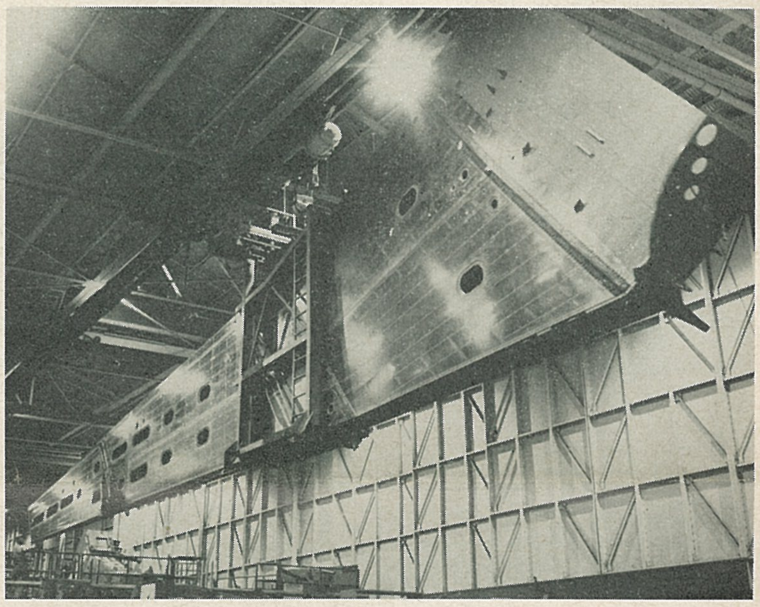
Cox has been with Convair since 1937. He was appointed assistant foreman in 1950 and has been a foreman since 1956. In addition to an engraved plaque and certificate he received a purchase order for $250 worth of equipment for his home workshop.

Previous to the presentation, B.

(Continued on Page 2)



TOP HONOR—Jack W. Cox of Dept. 170 (left) receives top Convair SD cost reduction award from Convair President J. V. Naish who termed award "most significant and meaningful ever made at a Convair operating division."



SWINGING HIGH—Alice Henry, second-shift crane operator at Convair San Diego, skillfully maneuvers giant wing of Convair 600 jet transport into fixtures for Scotchweld preparation. Left-hand wing section was first to come out of bucks in Bldg. 2, Plant 1.

First Wings For Jet 600 Going Into Mating Soon

Convair's first 600 jet transport was due to move onto the assembly line in Bldg. 2 at Convair San Diego this week as the two wing sections go into wing mate.

First wing for a Convair 600, the left-hand section, was pulled out of the wing bucks ten days ago with the right-hand section following it into Scotchweld preparation last week.

The two huge wings were due to be out of the Scotchweld oven this week, said F. E. Grossher, superintendent of 880 and 600 wing assembly. The first 600 is going onto the primary assembly line shortly.

Meanwhile, wings for the second 600 are already in the wing bucks, reported E. L. Wallin, Dept. 145 foreman. A set of 600 wings will go through the wing bucks approximately every three weeks, and, according to the present schedule, a Convair 600 will be moving down the line in between every fourth or fifth 880.

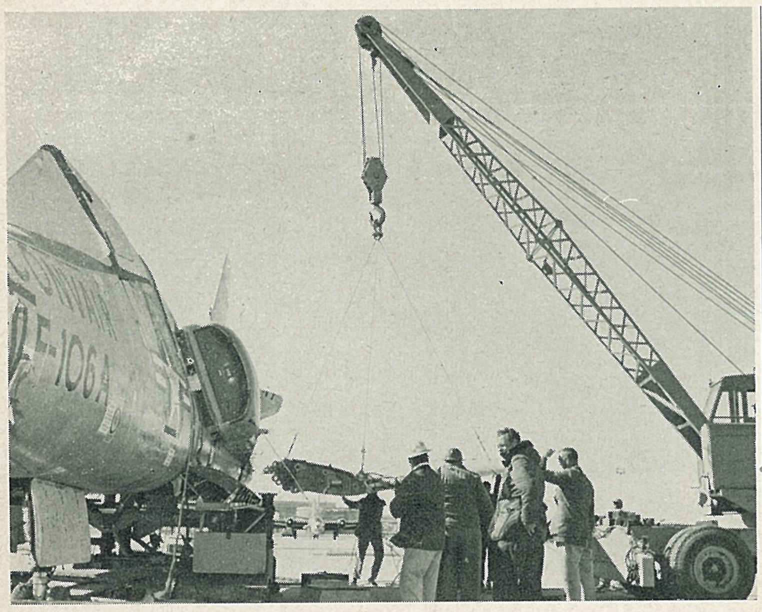
Although wing sections of the Convair 600 are very much the same in appearance as those of the 880, they are slightly longer and of a heavier structure. They must serve as integral fuel tanks for the over 15,000 gallons of jet fuel carried by the 600 in comparison to the 10,770-gal. load of the 880.

Plans call for the first 600 to be off the line by late summer and ready for its initial flight in September. Deliveries are due to start next spring.

Contract Terminating Office Shifts at SD

Contract termination office at Convair SD has moved into a new location in Bldg. 19. C. L. Polsley (Dept. 90-0) and his staff are now in room 21 on the ground floor of the General Office building.

Their former location on Bldg. 19's fourth floor is being remodeled for occupancy by General Office auditing section.



DEWINGED—First F-106 slated for trip to San Diego from Palmdale undergoes wing removal. Planes travel to SD by truck for "test-to-tact."

First F-106s For 'Test-to-Tact' Go Into Work at SD Plant 2

Work on the first three Air Force F-106s to enter a "test to tactical" modification program is now under way at Convair San Diego's Plant 2.

A fourth plane is expected from Palmdale tomorrow. Others, currently in storage at Palmdale, will arrive at a delivery rate of one per week.

The total program calls for modification of 35 test airplanes to tactical configuration. The first part of the program, funded through June, 1960, calls for converting eight single-seat F-106s and one two-seat F-106B. The 26 aircraft expected to follow include 20 F-106s and six F-106Bs.

"Test to tactical" work at SD is expected to extend F-106 production capability to June, 1961.

Meanwhile, Convair is preparing a proposal for periodic updating of F-106s now in operational service.

W. J. Dewey, project administrator for the F-106, said the modified planes will match the combat capability of the last production aircraft currently on order by the Air Force.

Actual primary and final assembly of the modified planes will be phased into the F-106 production line after the last production model, Dewey said.

Modification work now in process in Bldg. 2 at Plant 2 consists of removal of equipment and furnishings and demating of fuselage. Mockup and proofing for change incorporation is being accomplished in Bldg. 3 at Plant 2.

Planes trucked from Convair's Palmdale facility have already had fire control systems, engines, and wings removed.

Convair SD work will consist of replacing the present nose and cockpit sections of the aircraft with new sections.

New nose and cockpit sections for the single-place F-106s will be produced at Convair San Diego. Those for the two-place F-106s will be produced at Convair Fort Worth and shipped to San Diego for assembly. The first nose and cockpit section from Fort Worth will be delivered in September.

Atlas Bases Get Launchers

Second series E missile launcher built at Convair San Diego for the Atlas ICBM early this week was delivered to Sycamore Canyon Test Site. The first series E launcher was delivered in December, also to Sycamore.

Meanwhile, shipment of series D launchers continued on schedule. Deliveries last month were to Sheppard AFB, Wichita Falls, Texas, and Warren AFB, Cheyenne, Wyo.

The launchers are being built at Convair SD under an "assist" contract for Astronautics. Launchers are installed at the various sites by Astro personnel.

According to John Luckett, manufacturing control general supervisor at Plant 2, seven series E launchers will be produced. Six are research and development assemblies, both captive flight and static test. The seventh will be operational. Assembly and fabrication on the series E launchers are being accomplished at Plant 2.

All units for the series D program, on the other hand, are operational, Del Meredith, manufacturing control supervisor at Plant 1, said. Convair SD will build a total of 28 launchers in this series. Twelve have been delivered thus far to Sheppard, Warren and Vandenberg AFBs. Future deliveries are slated for Warren and Offutt AFB, Neb.

Fabrication work on the 40-ton series D launchers is being accomplished at Plant 2; Dept. 31 at Plant 1 is responsible for final assembly.

Completion of present contractual requirements for both D and E launchers is expected around June.

Annual Dance Set For Mar. 19

Annual Spring Dance of the Convair SD Management Club is scheduled for Saturday (March 19), from 9 p.m. to 1 a.m., in the Balboa Park Conference Bldg.

Merle Carlson's orchestra will play for dancing and a buffet supper will be served starting at 9. Tickets, priced at $2 per person, are now available at the usual departmental outlets.

The affair is sponsored by manufacturing control. John Luckett, general supervisor of manufacturing at Plant 2, is general chairman.

★ Convairiety ★

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Pomona Editorial Offices, Room K-222, Bldg. 2, ext. 6226, mail zone 3-8. Staff: James Combs Jr., news editor; Dorothy Keller.

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Award Goes To Jack Cox

(Continued from Page 1)

F. Coggan, Convair vice president and San Diego manager, introduced each of the 20 eligible President's Award candidates. Coggan also announced the winner of the January MacSave-it award, P. E. Hoover (Dept. 4-0).

The Management Club's Mug of the Month honor went to Tony Berardini (Dept. 110) for his work as a community leader in sports activities for various youth groups. Berardini was also commended for his efforts with the Convair Recreation Association, which he served as president for two years.

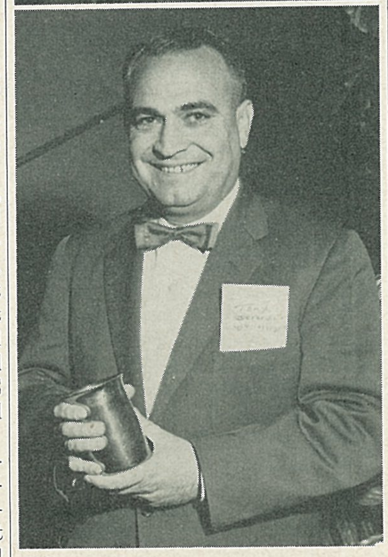
The meeting was the club's National Management Association night. Featured speaker was Fred Smith of the NMA. The affair was sponsored by controller's departments.

Two Convair FW Men In Club Ceremony

John N. Watson and Richard Russell of Convair FW educational services played key roles in Feb. 23 charter ceremonies for the Rocketdyne Management Club in Waco, Texas.

Watson presented the new club's charter and gavel set to R. C. Terry, club president. Russell made the charter address.





HONORED—Paul Hoover (above) of Dept. 4 received January MacSave-it award and Tony Berardini (Dept. 110) got Mug of Month for February at recent Convair SD Management Club meeting.

SD Electronics Gets Contract To Develop Airborne Radar

Convair San Diego electronics has received a $1¼-million contract from Convair Fort Worth for development of an airborne radar to be used in a reconnaissance system (Project Quick Check). The radar will be flight tested on the B-58 supersonic bomber being built at Convair FW.

The system will be an extensive modification of the present navigation bomber equipment now in production at Convair SD for Autonetics Division of North American Aviation, Inc., said R. E. Honer, manager of SD electronics.

Delivery of the radar system is set for January of 1961. Manufacture will be done in the SD electronics manufacturing area. D. A. Graybill is project engineer of the program at Convair SD.

SD electronics has been working since late 1956 on research, development, design, and manufacture of radar systems for North American's A3J Navy carrier-based attack bomber under construction at the Columbus, Ohio, division.

Electronics Occupies Expanded Bldg. 4 Area

Occupancy of the newly-completed electronics assembly area at Plant 1, Convair San Diego, this week marks the completion of the first stage in the current electronics manufacturing expansion program.

By the first of June electronics manufacturing will occupy the entire east half of Bldg. 4, between Cols. 1 and 23, said E. W. Carlson, chief of SD electronics manufacturing.

"Enlargement of our manufacturing area will provide Convair San Diego with a modern, efficient electronics manufacturing facility capable of vastly increased production," said Carlson.

Expansion of the area will see it more than doubled in space, with a total of 49,000 sq. ft. occupied by electronics mechanical and assembly functions by mid-summer.

Convair SD's electronics production activities were localized in the southeast end of Bldg. 4 last summer to provide the nucleus of an integrated manufacturing facility within the company.

The new area, extending from Col. 13 to 23, adds 22,000 sq. ft. of space to give assembly functions more adequate working room and facilities. All of the 390 electronics people engaged in both mechanical and assembly activities had been located in the first-occupied area, from Cols. 1 to 11.

Approximately 250 of these will have been relocated in the new addition following final moves this week, said B. L. Shaw, in charge of electronics assembly and test. Moves, spread over three weekends, have shifted functions from the original Bldg. 4 area and from the second floor of Bldg. 51 into the new assembly area without interruption of work.

Pioneers making the first move Feb. 19 were those of mobile assembly, precision mechanical assembly, transformer fabrication shop, and large item buildup. Last weekend saw wire preparation, final assembly, and part of electronic assembly people installed. Joining them this weekend will be the rest of the electronic assembly line, pilot assembly, and production test.

Mobile assembly, production test, and transformer fabrication people came to the Bldg. 4 location from Bldg. 51.

The new area, which reverted to Convair SD after it was released by Astronautics last fall, has been completely renovated by plant engineering. Like the first electronics area, it is partitioned off from the rest of the building with 16-ft. walls. Interior of the large open area is painted tan and white with gleaming white ceiling. Modern fluorescent fixtures provide a light level of 100-ft. candlepower at the work surface. Air conditioning will be installed ultimately, said industrial engineers.

New work stations for 84 electronics assemblers and 29 mobile assembly stations have been installed, said Shaw.

Remaining in the original area, between Cols. 1 to 8½, will be all machine shop activities, sheet metal, stockrooms, etched circuit facility, inspection and support operations for mechanical functions. Next stage of electronics manufacturing reorganization will see the rehabilitation of the precision machine shop area by the end of May, said Carlson.

Machinery and work areas will be relocated throughout the space for greater efficiency, he explained. New machinery, including jig bores, jig mills, and additional lathes, are on order for delivery this year and next to increase the capacity of the mechanical fabrication section, in charge of W. S. Childs.

Final step in the three-stage program will see the area between Cols. 8½ and 13 sealed off and partitioned for receiving, inspection and stores.

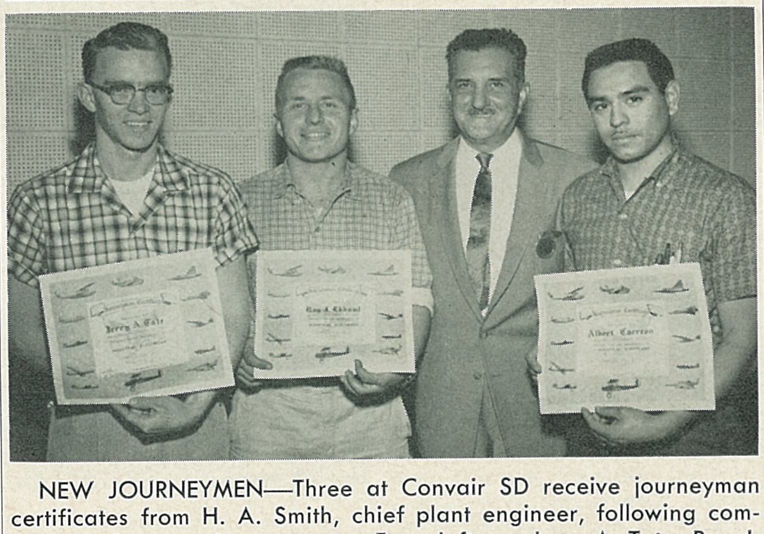
By July 1, all electronics manufacturing activities will be located in Bldg. 4 with one of the last shifts bringing the plastic and encapsulation facility from Bldg. 51's first floor.

Other moves will see electronics manufacturing administration offices moved to the first floor of Bldg. 4. Carlson will move his office from its present location on the second floor of Bldg. 51 and his staff will come from the second floor of Bldg. 4.

"We cannot give enough credit to the support we have received from all of Convair San Diego operating division," stressed R. E. Honer, manager of SD electronics. "Development of our electronics manufacturing was made possible only by the assistance and cooperation of the entire company. We have been given a chance to grow in view of the great potentiality of business which electronics production can contribute to Convair SD's output. And, we have no doubt that with our present capacity, we will fulfill every expectation!"

Honer said that, with present work on hand and anticipated contracts, expected employment in SD electronics manufacturing would probably reach 500 by July.

"We are working now on 20 active contracts for outside companies as well as Convair operating divisions," he explained. "Most of our production in the electronics field consists of manufacture of radars, instrumentation, and test equipment. Approximately 20 per cent of our manufacturing is in support of prime products of Convair SD, and the balance is divided between assists for Astronautics and Fort Worth and contracts from the Air Force and private companies."



NEW JOURNEYMEN—Three at Convair SD receive journeyman certificates from H. A. Smith, chief plant engineer, following completion of apprentice program. From left are Jerry A. Tate, Ray J. Ekhaml, Smith, Albert Carreon. All are now industrial engineers in Dept. 25.



SKIMMING—F-106 flashes past camera at more than 700 mph on low level run. At one point plane was below sea level, at another at 8,000 feet while skimming mountains.

At 700 mph, F-106 Skims Tree Tops in Test Dash

A Convair F-106, world's fastest jet aircraft, has demonstrated its low-level striking capability by skimming at tree-top height over 300 miles of Southern California desert at 700 miles an hour.

The flight was made during a test mission from Edwards Air Force Base by C. E. "Chuck" Myers, Convair engineering test pilot.

Substantially all of the flight was made in turbulent air at elevations of 50 to 300 feet above the surface. Averaging 700 mph, the plane dipped 100 feet below sea level crossing Death Valley, climbed to 8,000 feet crossing the Panamint Mountains.

Myers said the flight demonstrated the plane's suitability for low-level tactical missions as well as its normal interception missions at stratospheric altitudes and Mach 2 speeds.

The low-altitude flight was made under the most adverse conditions. The F-106 carried empty external wing fuel tanks for drag effect. The aircraft's automatic damper control system was turned off. Instrumentation and ballast brought weight up to the battle-ready operational total.

"The ground went by in a blur," Myers said. "The hot desert air caused a lot of turbulence, but the plane handled well. It carried a 16 mm. movie camera in the cockpit to record the flight. I loaded and unloaded it six times during the mission."

On Dec. 15 the U.S. Air Force supersonic all-weather jet interceptor set a high-altitude world speed record of 1525.95 miles an hour at Edwards Air Force Base.

The F-106 has been going into operational squadrons of the North American Air Defense Command since last July.



SKIMMER—C. E. (Chuck) Myers, chief test pilot at Edwards AFB for Convair, was at controls on low-level F-106 flight.

Fuel Experts See SD Plant

Delegates from oil companies throughout the United States, in San Diego early last month for the American Petroleum Institute's meeting of its Aviation Technical Service Committee, spent part of a day at Convair San Diego.

Through arrangements made by Glenn Karel, senior propulsion fluids group engineer, the 45 sales managers and fuel specialists saw the 880 mockup and production line. They also heard description of fuel systems and servicing of Convair's jet transports.

Other Convair SD men assisting in the tour were Robert Pierce, design specialist; Ward Mitchell, group engineer; John Hamilton, senior design engineer; and J. J. Miller, engineering administrative assistant.

Candidate Kennedy Flies in Model 240

A Convair-Liner will be making the "grass-roots" circuit to every part of the United States as the 1960 presidential campaign shifts into high.

Sen. Jack Kennedy of Massachusetts, Democratic presidential hopeful, is using a converted Convair plane as his personal "flying office-home" for his cross-country speaking tours.

The plane, a Model 240, has been leased by Kennedy's brothers and sisters from Wayfarer Katch Corp., White Plains, N. Y., to ease his campaign chores. The brown and white unmarked craft has been modified to carry about 12 people and sleep seven. It has a full-time crew of two pilots.

Siren's Shattering Screech Shakes H--- Out of Materials in SD Test

For Pure Noise, Fire Engines Put to Shame

A noisy siren, many times more powerful than the loudest fire engine siren, has determined construction of material going into parts for Convair's jet transports.

Various types of honeycomb panels have been undergoing sonic vibrations at Convair San Diego's siren facility at the SD seaplane ramp. The vibrations are strong enough to shatter an ordinary piece of aluminum in less than two minutes. The research and development program, directed by SD dynamics section of engineering, has been under way during the last two years to determine the most fatigue resistant core materials, in relation to weight.

Results have been applied to design for trailing edges of Convair jet transports, said G. L. Getline, SD design specialist. He explained that trailing edges of present-day jet transports, located immediately behind engine nozzles, must be able to withstand high frequency vibrations from sound pressure generated by jet engine exhausts.

Sound pressures during a plane's takeoff and climb-out, when maximum power is used, are duplicated in SD's test facility operated by dynamics laboratories' test engineers. A giant 200-gallon sphere forms the plenum chamber to maintain constant pressure. Air is funneled through the chamber into the "chopper" which, with its slotted, rotating discs, breaks up the air into "bubbles" to produce different levels and frequencies of sound pressure.

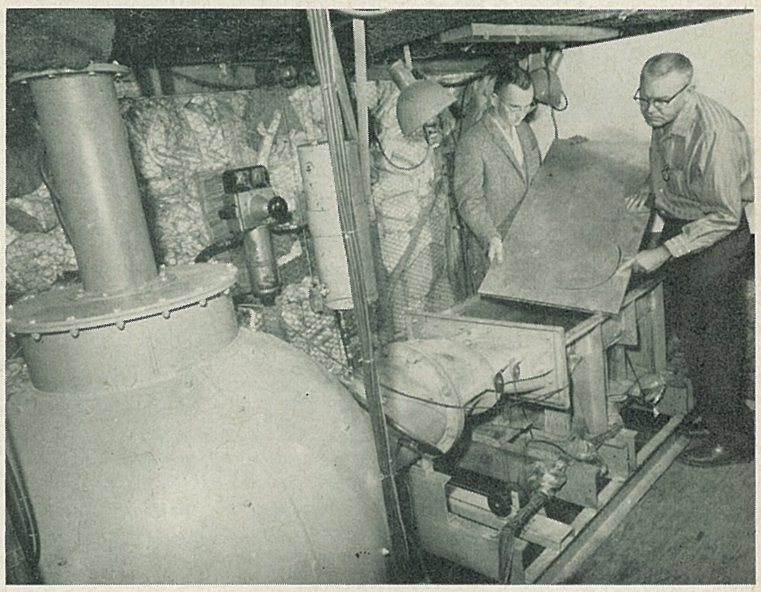
Test panels, clamped into a frame, form the top side of the flattened horn. Thus, they receive full force of sound waves as they sweep across the bottom surface.

Waves from the vibrating panels are so severe, say test engineers, that no one could stay within the small dugout structure during tests without suffering hearing or other physical damage. The pressures, extreme enough to shatter high-tensile bolts, could, in certain circumstances, cause human blood to boil.

Each panel goes through about 15 hours of punishment, equivalent to 10,000 hours of actual use on a plane. Microphones under test specimens and strain gauges on the panels relay reactions to a control room on the hill above the siren.

Designed and constructed in the San Diego plant for a general sonic vibration test program, the siren has been operated by Harvey M. Ingalls of SD dynamics lab ever since it was installed. P. A. Kinzie, test engineer, has been directing the current series of panel tests. Evaluation of test results is made by dynamics engineers under direction of Getline and recommendations made to the wing and tail design group of engineering.

Besides Convair's own test program, subcontract work for other aircraft companies during the last year has seen panels tested for North American Aviation's proposed F-108 and B-70 as well as the A3J Navy bomber, now under construction at the Columbus, Ohio, division.



NOISEMAKER—Harvey M. Ingalls of Convair SD dynamics lab (at right) points to mark outlining crack in honeycomb panel caused by sonic vibrations during testing program at SD seaplane ramp facility. Large chamber in foreground serves as siren with panel forming one side of flattened "horn." Phil A. Kinzie (left) was in charge of testing.

Another FIS To Get F-102s

Eleven crewmen from the 321st Fighter-Interceptor Squadron at Paine AFB, Wash., have completed a training course on F-102As, Convair-built interceptors, at Portland Air Base, Ore.

The pilots are becoming acquainted with F-102s in the three-week familiarization course before they begin flying them this year. Paine's 321st FIS will convert to Convair all-weather jet interceptors within the next few months.

During last month's course they received instruction in the flight simulator, study of manuals and technical orders dealing with mechanics of the F-102A, weapon system, tactics, and ADC teamwork with ground control intercept.

As the pilots completed their training they returned to their home base, near Everett, Wash., to pass on F-102A information to other members of their unit.

F-102s Help Set Safety Record

Piling up the longest accident-free run of any Air Defense Command squadron, the 332nd Fighter-Interceptor Squadron at England AFB, La., passed its 10,000th "safe" hour last month.

The 332nd, equipped with Convair F-102s, has not had an accident for 45 months, since April 17, 1956. It was transitioned to F-102s while still based at McGuire AFB, N.J., in July of 1957.

The safe-flying record also is believed to include the longest period of flying F-102As without an accident, reported Vernon Saultz, field service representative for Convair San Diego at the Louisiana base. Saultz also said that the squadron, commanded by Lt. Col. George R. Halliwell, probably holds the record for the most F-102A flight time for one single month—955 hours for 798 sorties flown during April of 1958.

Camouflage of World War II Recalled by Excavation Work

Excavation for foundations of Convair's new cafeteria at San Diego recently brought to light long-forgotten vestiges of World War II.

Large concrete blocks, 12x12x12 feet in size, were discovered in several locations a couple of feet below the surface in the area next to the General Office building where the cafeteria is being built.

Oldtimers in the plant remember when the blocks were used to anchor cables for the overhead camouflage which turned the SD plant environs into a peaceful "countryside" from the air. The painted camouflage (netting over wire mesh) went up in 1942 as protection from possible air raids during the war. After there was no more use for the concrete anchorages, they were covered over and forgotten. The site was black-topped and used as a parking lot until it was chosen as location of the new cafeteria.

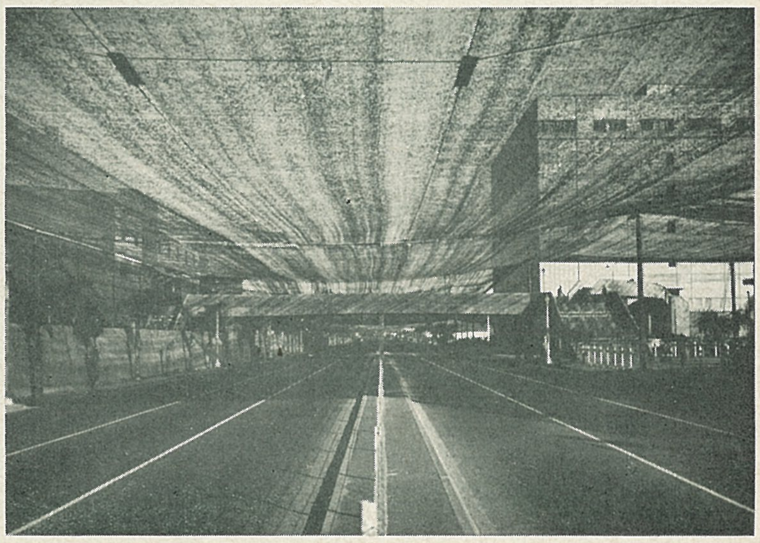
So far, said H. A. Smith, SD chief plant engineer, ten of the huge blocks have turned up during ground work for the cafeteria building. Only one has had to be removed completely — the one which was in the exact spot marked for the food service elevator pit. Others have been channeled through wherever necessary for foundation work or underground plumbing.

Unless work should be held up by spring rains, the cafeteria will be completed as scheduled by the first of June, Smith said. All foundations were to have been poured by this week.

First foundation to be laid was that for the east wall which was poured the first of last month.

"The building will be going up fast as soon as work gets above ground," Smith said.

Construction is being done under a joint contract by Anthony Rossi and Chula Vista Electric.



BACK IN 1944—This was how Pacific Highway looked at Convair SD during World War II. Overhead netting was designed to camouflage plant from air attacks that never materialized.



WELL EQUIPPED—Roy Cunningham shows off pet dogs. Small one really has mouth full of teeth.

Cocoa, Pup With Double Dentures Threatened by Trip to Dentist

"Cocoa" likes to get her teeth into things. Shoes, table legs, chairs, dog food, you name it.

And "Cocoa" is a little better "equipped" than most seven-month-old pups. She has two sets of teeth!

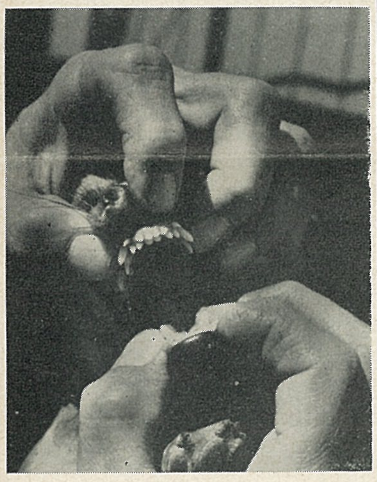
Two rows of uppers and two rows of lowers gleam brightly when she barks. Looks like an "overplayed" television ad for toothpaste.

Cocoa is a Chihuahua with a trace of Pomeranian. She belongs to Alice (Dept. 8 SD) and Roy (Dept. 305 Astro) Cunningham. They bought her when she was six weeks old as a companion for their seven-year-old "Caniche" poodle, Pierre. Now Cocoa rules the roost, Pierre included. She sleeps in a cradle of her own and gets tucked in at bedtime.

Most pups shed their baby teeth between two and three months. Cocoa didn't. Her permanent teeth came in right below the others. An animal doctor told the Cunninghams this is rare, indeed.

Cocoa doesn't seem to mind. She goes right on chewing away, both sets working smoothly.

But the pup may be faced with with a painful experience—a date with a dentist. Doctor's orders. Unless the baby teeth fall out on their own, she must have them pulled when she's nine months old.



TOOTHY—Cocoa opens wide for camera, showing both permanent and baby teeth.



HONORS—Shown at Omaha during "Spur" award presentation to Convair's T. G. Lanphier Jr. are, from left, Paul Hurley, H. L. Montgomery, Frank W. Davis, Arthur C. Storz Sr. (who made presentation), Lanphier, Ross C. Wills, Earl B. Newton, R. H. Widmer, W. C. Keller.

'Spur VIP Award' Goes to Tom Lanphier; Civic and Military Leaders Attend

Thomas G. Lanphier Jr. joined some distinguished company in January when he received the "Storz VIP Spur" award at a dinner in Omaha, Neb., attended by military and civic officials.

The award was made by Arthur C. Storz Sr., prominent Omaha businessman and civic leader, to the Convair vice president for having "won his spurs for outstanding performance in behalf of national defense."

Others who have been so honored for distinguished service to the country include: James Doolittle, Curtis LeMay, Eddie Rickenbacker, Robert Taylor, Jimmy Stewart, Jacqueline Cochran and Arthur Godfrey.

'Average' B-58 Pilot A Veteran of Flight

The "average" B-58 Test Force pilot is 37 years old, has a wife and 2.8 children, and has had 17 years of service in the Air Force.

These figures were reported in Carswell's Aerospace Sentinel by Airman First Class Charles H. Ali, who handles flight records for pilots in Carswell's B-58 Test Force.

Further, Ali reported, the average pilot is a member of the regular Air Force, started flight training in 1942, flew a tour of combat in Europe or the Pacific between 1943 and 1945, and has made 11 "permanent" changes of station.

Electronics Items Shown at National Conference of IRE

Microwave items under development by Convair San Diego electronics were on display last month at the annual national conference of Institute of Radio Engineers' military electronics professional group in Los Angeles.

B. D. Skillman of electronics requirements, in charge of West Coast activities, arranged the SD electronics booth showing new concepts in antennas and wave guides now in the development stage by Convair SD electronics engineers.

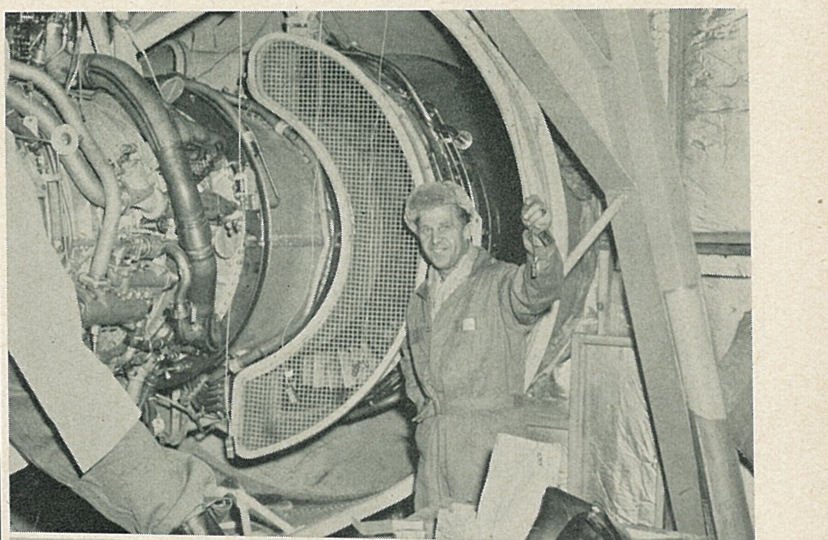
A photographic panel depicted the wide range of Convair-made electronic articles and the colored motion picture, "Electronics Capability," was run continuously throughout the three-day exhibit.

Several SD electronics engineers manned the booth during the conference. Among other Convair men taking active part in the sessions was P. D. Ferrara of Astronautics, chairman of the reliability section.

Convairiety Story Stirs Swedish Reply

A **Convairiety** story concerning the Fort Worth Chapter, Society of Technical Writers and Editors, brought an international reaction recently.

Etienne J. Guerin, Stockholm, Sweden, magazine editor, read the story in **Convairiety's** Mail Edition, and wrote to the chapter's Johnie Herbert (FW Dept. 6-5), expressing interest in establishing contact.





TASK FORCE—Dressed for winter weather, Convair SD and General Electric crew in Minnesota for Convair 600 pod anti-icing system tests are from left (lower shot): Karl Cardon, G.E.; Dick O'Neill, L. E. Roberts, George Lutz, Vernon Booth, Ross Anderson, G.E., Bill Michael, and (kneeling) Fred Hekking. In upper photo, Booth of SD propulsion design stands beside G. E. aft fan engine in pod test stand which he helped design. Two flatcars transported test equipment from San Diego plant to Hopkins, Minn., test site.

35-Degree Weather Too Warm For Jet 600 Pod Icing Tests

Half a dozen Convair San Diego engineers and technicians are home in San Diego sunshine after two months' wishing for zero weather.

The SD crew, in Minnesota for cold weather testing of the Convair 600 pod anti-icing system, say that now they really can sit back and enjoy warm weather instead of anxiously watching thermometers as the mercury crept upward to the "too-hot" point of 35 degrees.

In fact, the Minnesota winter was so "warm" that many times Convair engineers assigned to the task had to get up in the middle of the night to run tests. They started work at 3 or 4 a.m. at the coldest time of the night when temperatures would drop to a low of 15 degrees. By 9 a.m. the sun would warm things up too much to continue.

"We had a few 'good' days when it was down to zero," said Dick O'Neill, thermodynamics engineer.

The test site at Hopkins, Minn., a small country town about 20 miles southwest of Minneapolis, was chosen because of its accessibility, explained Dean Bowden, thermodynamics supervisor. Cold weather tests on the 880 engines and pods, as well as other Convair planes, were conducted on Mt. Washington, N.H., where the weather is foul enough, but often so much so that the site is cut off from the rest of the world. This caused delays, when parts or men couldn't get in or out.

Tests involved spraying droplets of water, such as make up cloud formations at below freezing temperatures, on the 600 pod. Without heat, as much as two or three inches of ice would form. However, the Convair-developed anti-icing system proved it could keep the surface warm enough to evaporate the droplets before they could freeze. Aside from weight, freedom from ice is important to prevent possible power plant damage from chunks sucked into the engine fan and compressor.

Returning last week as tests ended were: Fred Hekking, thermodynamics engineer (whose wife and child accompanied him to Minnesota); O'Neill; William Michael of thermodynamics lab; L. E. Roberts and George Lutz, Dept. 31 technicians. Vernon Booth of SD propulsion design, who was responsible for design of the 600 pod test stand, came back earlier.

Veteran Convair Man Retires But Leaves Sons to Carry On

Dink Stokes, 67, retired at Convair FW in February following over 16 years of service in Dept. 20-2 (traffic).

But his memory—and three of his sons—lingers on.

Matter of fact, the Stokes family has become somewhat of a Convair institution. Dink and his five sons have logged a total of nearly 70 years with Convair.

L. D. Stokes, Dept. 30, came to Convair FW in 1942 and has remained ever since. Before that, he put in nearly two years at San Diego.

J. H. Stokes, Dept. 64, was also on hand "when the doors were opened" at Convair FW. His service totals nearly 18 years.

Then there's B. L. Stokes, Dept. 82, who has amassed 12 years' service with Convair FW, interrupted only by a brief stint in the Merchant Marine.

Two other Stokes sons saw brief service with Convair.

Aubrey D. Stokes, now an attorney in San Angelo, served two years in purchasing at San Diego before a hitch in the Navy.

The youngest of the Stokes clan, Gene of Dept. 31, served two years at Convair FW before serving in the Air Force. He's now employed by another aircraft firm.

Throw in Dink Stokes' tenure and you come up with nearly 70 years of Stokes service with Convair.

"And I think I can speak for all of us in saying it's been very enjoyable," Dink said.

Dink is spending a "good many" of his retirement days fishing and hunting near San Angelo.

Son Aubrey has made this possible by furnishing him with an 18-foot trailer house, air-conditioned and equipped just like Stokes' Fort Worth home.

"You can say that I miss Convair," he said, "but I've left some Stokes there to carry on."



REUNION—Dink Stokes, seated center, who retired at Convair FW, gets together with five sons, left to right: L. D., J. H., Gene, Aubrey, and Bill. Stokes family has chalked up total of nearly 70 years service with Convair.

NEWS FROM OTHER DYNAMICS DIVISIONS

General Dynamics Corporation, created in April, 1952, as successor to Electric Boat Company, is composed of seven divisions and a Canadian subsidiary, Canadair Limited, of Montreal, airframe builders. The divisions are:

Convair, head offices at San Diego, Calif., aircraft, missiles, and space systems.

Electric Boat of Groton, Conn., submarines.

Stromberg-Carlson, of Rochester, N. Y., telecommunications, electronic equipment.

Liquid Carbonic of Chicago, Ill., carbon dioxide producer, industrial and medical gases.

General Atomic of San Diego, Calif., nuclear research, development, production.

Electro Dynamic of Bayonne, N. J., electric motors, generators.

Material Service Division, Chicago, Ill., building materials, concrete products and coal.

* * *

Stromberg-Carlson Will Build Project Mercury 'Nerve Center'

SAN DIEGO—Stromberg-Carlson here has been selected to design, build and install the vital monitor and control display system for Project Mercury.

Project Mercury's objectives are to put this country's first manned space capsule into orbital flight around the earth, investigate man's capabilities in the new environment and recover the capsule and the man safely. The display system will serve as the "nerve center" for the project.

Director of Stromberg-Carlson's participation for the project is Roy C. Ritchart, systems manager.

Stromberg-Carlson, under subcontract to Bell Telephone Laboratories, will install the system in the National Aeronautics and Space Administration control center at Cape Canaveral.

The center will display information about the flight gathered from a world-wide network of tracking and telemetry stations.

Data inputs such as the astronaut's heart rate, blood pressure, and body temperature; and the capsule's oxygen pressure, acceleration rate, attitude and route determination will be fed into the center and visually displayed.

The monitor and control display system will be housed in a room 40 feet wide by 60 feet long.

Support of Weapon Systems Discussed by Panel at SD

SAN DIEGO—Convair San Diego played host to delegates from other Convair operating divisions, and Stromberg-Carlson and Electric Boat Divisions at a two-day panel meeting on Weapon Systems Support, Feb. 23-24.

Discussions included talks on training devices for the B-58 and F-106, Atlas field facilities, Terrier checkout facilities aboard new ships. San Diego electronic engineers spoke on testability as a major design criteria and on radar systems now in production at San Diego. Final item on the program was a showing of the film, "Terrier Handling Aboard Ships."

Electric Boat and Stromberg-Carlson Divisions were represented for the first time at the symposium, held every few months by members of the standing committee. They brought information on Electric Boat's development of the submarine simulator and ground support at Stromberg-Carlson.

The last meeting of the group was held last fall at Convair Fort Worth.

J. J. Wheeler, SD senior group engineer in support planning and design, acted as chairman for last week's meeting. Others attending were R. J. Lutz, Convair assistant to vice president-engineering; A. H. Muir, Convair staff systems analyst; F. L. Cook, N. E. Armstrong, J. E. Bowen, H. J. Stuart, C. S. Brandt, J. G. Wenzel, all of Convair San Diego; M. S. Roberts, R. W. Wollenweber, D. R. Rutland of Convair Pomona; A. H. Gross, K. E. Coughlin, T. G. Fleming, W. E. Barnes of Convair Astronautics; R. W. Geis, W. R. Swaim, and N. G. Hartwell, Convair Fort Worth; H. N. Bowes of Electric Boat; and R. D. Braggins and L. C. Eisaman of Stromberg-Carlson.

F-106 Manuals Under Review

First formal Air Force review of flight manuals for the F-106A/B jet interceptors was held at Convair San Diego Feb. 15-19.

Twenty Air Force officials met with Convair SD personnel from service publications, service engineering, flight test, and engineering to examine all flight manual material in the light of latest information.

Conference chairman was J. F. Kneubuehl, Flight Operating Instructions Branch engineer from WADD Headquarters, Wright-Patterson AFB, Ohio. Other team leaders were Capt. W. S. Seufert, SAAMA, San Antonio, Texas; Maj. W. W. Moore, ADC Headquarters, Colorado Springs, Colo.; Capt. M. O. Detlie from Director-Flight and Missile Safety Research, Norton AFB, Calif.; Maj. N. D. Flack, F-106 Weapon System Project Office, WADD; Capt. H. C. Gordon and Capt. R. A. Rushworth from AF Flight Test Center, Edwards AFB, Calif.

According to H. R. Kennedy, chief of service publications at SD, revised editions of the F-106 flight manuals containing the latest Air Force views on flight safety and operation will be in the hands of F-106 squadrons by early summer.

Nuclear Applications Manager Appointed

SAN DIEGO — Titus G. LeClair has been appointed manager of nuclear power applications for General Atomic Division. He will join the division this month, coming from Chicago where he has been manager of research and development for Commonwealth-Edison Co.

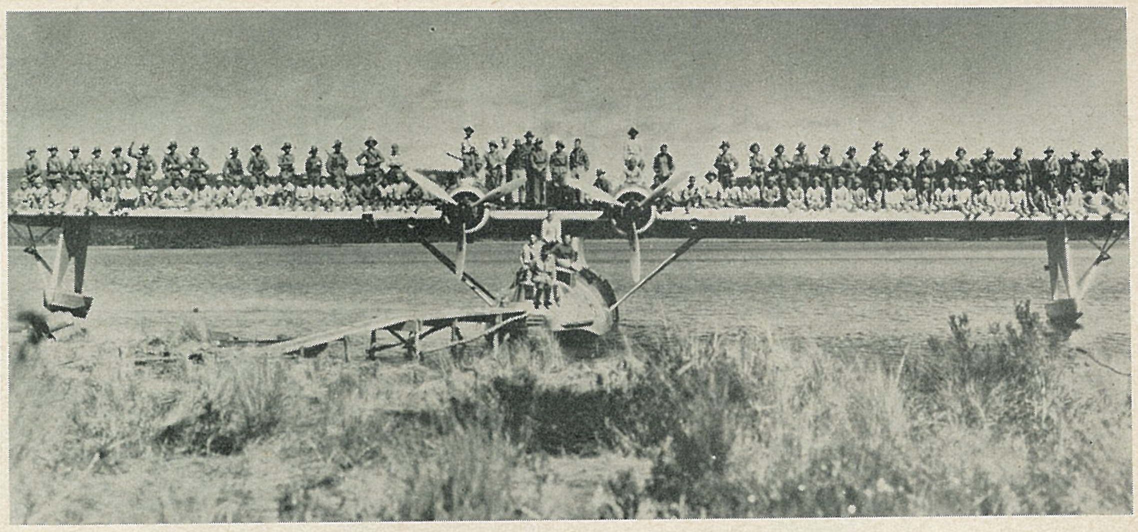
LeClair is a recognized leader in the development of nuclear power for central station generation of electricity.

Coburn Speaks At Symposium

"Reliability — A Key to Progress" was the title of a presentation made by J. L. Coburn, reliability projects administrator at Convair FW, before a recent engineering symposium in Syracuse, N. Y.

Jointly sponsored by Syracuse University and the American Society for Quality Control, the symposium is an annual event. Coburn's presentation is part of a series scheduled by Convair FW's reliability management department aimed at furthering recognition of the importance of reliability in today's missile and aircraft manufacturing.

During the all-day symposium a B-58 model was presented to Syracuse's aero engineering section of the mechanical engineering department. It will be used in class demonstrations.



EXPLORERS—PBY proved able prop for photo taken at Lake Habbema in Dutch New Guinea interior, 11,000 feet above sea level. Lined up on wing in back row are Dutch soldiers; crouched in front are native Dyak (name of tribe) carriers. Between engines, on wing, are Dutch and American scientists. Crew members are sitting on nose.

World Circling Guba an Example Of PBY's Workhorse Dependability

(This 29th installment in continuing history of Convair deals with spectacular career of a globe-circling PBY.)

For tough, workhorse dependability over a long period of years, the PBY had few equals. This was demonstrated by the earliest commercial versions, which carried the boat's name into the Arctic and around the world. The first was built in 1937 for Dr. Richard Archbold, leader of an American Museum of Natural History expedition to Dutch New Guinea. He named the boat "Guba," a Motu word meaning "sudden storm."

After test flights to Boulder Dam and Lake Tahoe, Archbold departed San Diego June 24 on the first transcontinental flight ever accomplished by a flying boat. He landed at New York 17 hours, 3½ minutes later.

In August Archbold agreed to sell the first Guba to the Russian government, which was organizing a search for Soviet aviator Sigismund Levanesky, missing with his crew on an attempted transpolar flight. Sir Hubert Wilkins, the English explorer, was retained by Russia to head the search. He took Guba from New York to an operating base a hundred miles north of the Arctic Circle, at Aklavik in the Canadian Northwest Territories. Between mid-August and Sept. 18, the seaplane flew 19,000 miles in a fruitless hunt over largely unsurveyed territory. (The aircraft eventually was taken to Russia.)

Meanwhile, Archbold took delivery on a second Guba and the transpacific flight started from San Diego June 2, 1938. Archbold flew to Pearl Harbor in 18 hours, 3 minutes; hopped to Wake Island on June 6; and on June 9-10 made a passage through unflown skies to Hollandia, New Guinea. During the next 11 months Guba made 168 flights and carried more than 280 tons of supplies to expedition field camps in the interior. Many of the landings were made on Lake Habbema, 200 miles inland and 11,000 feet above sea level.

While the New Guinea work was nearing an end, the Australian and British governments enlisted Archbold's participation in a survey of an air route across the Indian Ocean, which had never been flown.

After installation of new engines shipped from San Diego, Guba left Hollandia May 12, 1939, and flew to Sydney via Port Moresby and Townsville. From Sydney the boat flew non-stop across Australia to Port Hedlund, the jumping-off point. The survey was carried out with stops at Cocos Island, Direction Island, Diego Garcia and Mahe. News of the boat's arrival June 21 at Mombasa, on the Kenya coast, stirred interest throughout East Africa.

Heading homeward, Guba bridged Africa in two hops, letting down on Lake Victoria and on the Congo River at Coquilhatville. On June 29-30 it made an overwater flight of 3,190 miles from Dakar to St. Thomas in the West Indies (time, 19 hours, 33 minutes). The next afternoon Guba landed at New York and Archbold and his crew were whisked off to the Aviation Building at the World's Fair for an official welcome. Guba returned to San Diego Bay July 6, completing the first round-the-world flight ever made by a seaplane, and the first made by any aircraft at the globe's largest diameter.

Years of hard service still lay ahead for Guba. The British Purchasing Commission bought the boat in 1940, and on Oct. 25 it took off from Newfoundland on a 16½-hour flight to Scotland. It spent three years in Africa, flying a shuttle run for British Overseas Airways. In 1944-45 it was used as a utility plane by Saunders-Roe, Ltd. Then it was turned over to the Ministry of Aircraft Production and sent to North Wales for several years' use in testing flying boat moorings. Finally Guba sank in a gale, was raised, stripped of useful equipment and sunk at sea.

(Steve Barinka, co-pilot on Guba's trip around the world, is still with Convair, as SD superintendent of field operations. He remembers the trip as a thrilling experience, but without major incident.)

Dr. Rust Will Speak At Dinner Meeting

Dr. William Rust, president of California Western University, will speak before a March 14 dinner meeting of the San Diego Section, American Society for Quality Control, at the Lafayette Hotel.

Astronautics employees may contact Eric Callard, ext. 3395; Reggie Sanchez, ext. 1072, Plant 2; or Walt Dibblee, ext. 1171, for tickets. At San Diego they are available through Sammy Petcher, ext. 778; Glenn Gibbons, ext. 719, Plant 2; Roger Serrano, ext. 641, Plant 2; or Jerry Knauss, ext. 2110 at Rose Canyon.

Environment Group Organizes at SD

The recently organized San Diego chapter of the Institute of Environmental Sciences will hold a 7 p.m. meeting March 9 at the Lafayette Hotel.

The meet is open to San Diego and Astronautics employees.

George Coleman of the Naval Electronics Laboratory will speak on "Mechanical Impedance" and officers will be nominated from the floor.

Contact J. E. Dorsch, ext. 2277, or Dick Donohue, ext. 1813, both at Astro, for information.

Greek 'FBI' Officers Visit Convair FW

Two lieutenants of the Greek Royal Gendarmerie, counterpart of the FBI, visited Convair Fort Worth recently and were impressed by the B-58 during a plant tour conducted by C. E. Doering, supervisor of industrial security and investigation.

Later they conferred with F. R. Chambers, manager of FW industrial relations and security, and I. B. Hale, chief of FW industrial security. They are on a six-month U.S. trip studying police methods.

Is It News?

Call Convairiety



AROUND THE WORLD—Members of second Guba crew who made scientific expedition to Dutch New Guinea, eventually completing round-the-world flight at globe's largest diameter, pose at Coast Guard Ramp in San Diego prior to departure June 2, 1938. From left: Steve Barinka, co-pilot and flight engineer; Lewis Yancey, navigator; Dr. Richard Archbold, expedition leader; Russell Rogers, captain; Ray Booth, radio operator; and Gerald Brown, flight engineer.



THIRTY YEARS — Alfred J. Bergman, Dept. 31 SD, last month celebrated his 30th anniversary with Convair. B. F. Coggan, SD manager, presented him with service emblem and gift of his choice.

Cash Prizes Given In Fishing Contest

Fishermen at Convair SD this week were reminded that their catches, both fresh and salt water variety, can qualify for cash prizes if entered in the monthly CRA fishing contests.

During the winter contest (October through February) a $10 first prize is awarded each month, according to R. W. Menzie, CRA commissioner. In the summer contest, anglers can win a $15 first prize, $10 second prize or a $5 third prize.

Entries are judged on a percentage basis in different classes. Entry blanks for the contest are available at employee services, Plants 1 and 2. They should be properly filled out and submitted no later than the fifth of the month following the catch.

JA Bacon Fryers Are Now on Sale

A limited number of bargain-priced bacon fryers, produced by a Convair SD Junior Achievement company, are still on sale at employee services, both plants.

The fryers are perforated plates which are placed over bacon while frying in the pan. They keep the bacon straight without repeated turning. They are available in three sizes: two 7½-inch models (square and round shapes) as well as a square 9-inch fryer. The smaller models are priced at 70c, the larger costs 80c.

Log Book Entries

Retirements

SAN DIEGO

COOPER—Edward, Dept. 218. Seniority date June 19, 1947, retirement effective Feb. 12, 1960.

GAMMICCHIA — Jerome, Dept. 230. Seniority date Oct. 30, 1950, retirement effective Feb. 12, 1960.

JOHNSON — Martin G., Dept. 402. Seniority date Oct. 27, 1952, retirement effective Feb. 1, 1960.

LAVINE—Edgar W., Dept. 600. Seniority date Dec. 1, 1955, retirement effective Dec. 4, 1959.

MULHALL — Henry J., Dept. 188. Seniority date Jan. 23, 1951, retirement effective Feb. 12, 1960.

NANCE—Harry C., Dept. 216. Seniority date Aug. 11, 1950, retirement effective Feb. 12, 1960.

ROSS—James R., Dept. 288. Seniority date Aug. 26, 1947, retirement effective Feb. 19, 1960.

Promotions

SAN DIEGO

Promotions to or within supervision effective Feb. 15.

Dept. 4-0, Material: To procurement field supervisor, M. E. Kruger.

Dept. 6-51, Engineering: To product support group engineer, J. F. Serafin.

Dept. 97-1, Data Processing: To tabulating supervisor, J. J. Kelly Jr.

Personals

SAN DIEGO

My deepest appreciation to the many Convair friends who sent messages of sympathy and beautiful floral tributes at the passing of my wife, Grace.

S. G. Hughes, Dept. 31

Deaths

SAN DIEGO

SIGWALT — William J., Dept. 115. Died Feb. 20. Survived by wife, Florence, two sons, one daughter.

VASQUEZ—Bernardo S., Dept. 135. Died Feb. 19. Survived by wife, Maria, three daughters, two sons, brother, 16 grandchildren.

Survival Film By Dana Lamb For SD Scouts

Dana and Ginger Lamb will personally narrate their adventure film, "The Search for the Lost Mission of Santa Ysabel," Friday (March 18) at 8 p.m. in the Roosevelt Jr. High School auditorium.

The program is being presented by Convair SD Management Club-sponsored Air Explorer Squadron 340. Proceeds will help defray expenses for a proposed Squadron trip this summer on the Salmon River in Idaho.

Tickets are priced at $1 for adults and 65¢ for children under 12. They can be obtained at employee services, both plants.

Dana and Ginger Lamb have followed the survival trail across the ocean, into deserts, and through jungles during the last 25 years. They are nationally recognized in the survival field, have published two adventure books, "The Enchanted Vagabond" and "The Quest for the Lost City."

The film to be shown relates the story of their adventures while seeking and finding the site of the lost mission in lower California. Included are many episodes covering survival in areas similar to our back country and desert.

Coineers to Hear Society President

CRA Coin Club members will hear a talk by Paul Hamm, president of the San Diego Numismatic Society, at their next meeting Tuesday (March 15) at 8 p.m. in the Hearing Aid Society Bldg., 3843 Herbert St.

Subject of the address will be "What Shall I Save and Why?" The talk should be of special interest to new coin collectors, according to Joe Miller, club spokesman. A coin auction will be held in conjunction with the meeting and refreshments will be served.

Memberships in the club will be taken at the meeting. In accordance with a recent bylaw change, a membership fee of $1 a year is now required. Additional information can be obtained by calling either Vince Bacon, ext. 2270, Plant 1, or Miller, ext. 1180, Plant 1.

Use of Equipment Topic for Car Club

Members of Convair SD's Sports Car Club will be instructed on the correct use of automotive equipment owned by the club at a meeting tonight (March 2) at 7:30 p.m. in the Natural History Museum, Balboa Park.

Two foreign car mechanics will conduct the session, demonstrating with the actual equipment where possible. The club owns over $1,000 worth of equipment needed for motor tuneups, wheel alignment and balancing, as well as complete motor overhaul.

Complete lists of equipment and tools owned by the club will be passed out to members at the meeting.

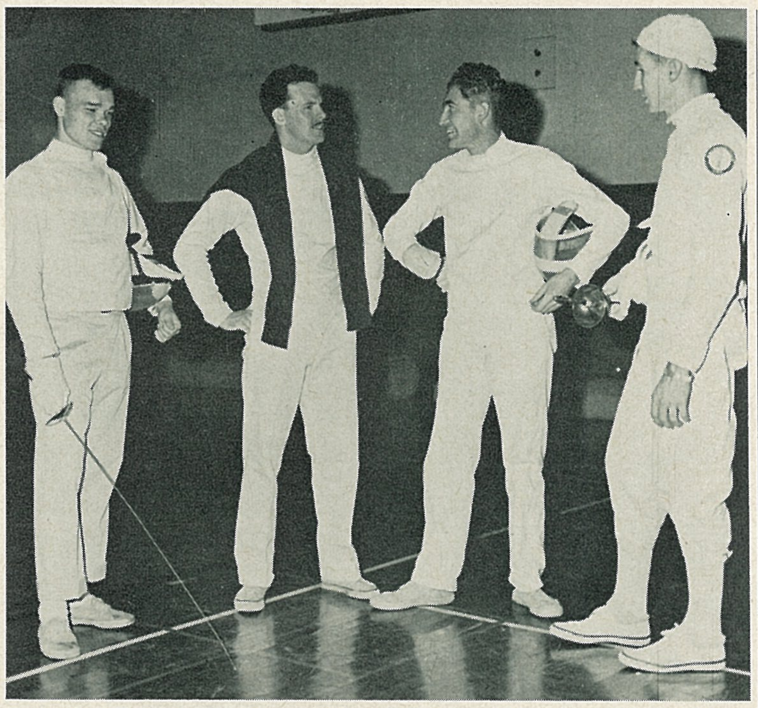
Plans will also be discussed for the group's next scheduled event, the "Spring Desert Tour," to be held March 26-27.

550 Bowlers Enter Championship Event

Nineteenth annual Convair San Diego championship bowling tournament gets under way this weekend (March 5-6) at Pacific Recreation Lanes.

Over 550 keglers will be competing for prizes in this year's classic, according to Jim Hayman and Mike Brooks, commissioners. Roughly 85 five-man teams and 168 doubles entries have been registered.

Team competition will be held this weekend. Individuals will vie for honors March 12-13 and 19-20. Over 100 prizes will be awarded.



NEW SPORT—Fencing enthusiasts from Convair SD and Astro are conducting regular practice sessions at San Diego Club on Friday evenings. Any interested Convair folk are invited to attend the 7 p.m. meetings. From left are Lowell Deburkee (Astro), Guy Gurski (Astro), R. C. McNamara (SD) and Mike Hurley (Astro).—Photo by Alan Henney, CRA Camera Club.

Fencing Proposed as CRA Activity, Two Organizational Meetings Set

Fencing will be considered as a possible CRA activity at Convair San Diego if a sufficient number of persons show interest in joining such a group.

Organizational meetings are slated for Friday (March 4) and Friday (March 11), both at 7 p.m. at the San Diego Club, Sixth and A Sts.

Any fencing enthusiasts at Convair San Diego or Astronautics are invited to attend either one or both of the meetings. Both experienced fencers and novices will be welcome.

According to Pete Beyrer of the SD CRA office, a sufficient number of persons must show an active interest in joining the group before fencing can become an organized CRA activity.

If enough persons attend the meetings a program of activities will be formed including competitions with outside groups, instruction for beginners, practice sessions, meetings, etc.

A score of fencers from both Convair SD and Astro have been working out at the San Diego Club for some time. They, presumably, would form the nucleus around which the proposed club could be formed.

R. C. McNamara (SD Dept. 6), spokesman for the group, said the present Convair participants vary widely in experience. Some have fenced on U.S. college teams, others have had experience in Europe. The majority, however, are inexperienced.

In addition to McNamara, some of the experienced fencers from Astro are Guy Gurski (Dept. 531-4), Mike Hurley (Dept. 597-1), Al Morse (Dept. 556-5), Luigi Ordorico (Dept. 597-1) and Barbara Proppe (Dept. 564).

For additional information contact Hurley, ext. 2857, Astro; or McNamara, ext. 2348, SD Plant 1.

ROCKHOUNDS FIRM FIELD TRIP DATE

Rockhounds from Convair San Diego will hunt agate and jasper when they trek to Sheep Springs and Rainbow Ridge March 12-13, Danny Whorton, commissioner, reports.

The rockhound destination is located near Inyokern on Hwy. 395. Whorton said markers will be placed at the highway turnoff. Maps will be given to all those making the trip.

Next meeting for the group will be held Thursday (March 10) in the Gillespie Field CRA Clubhouse at 7:30 p.m.

40 TOASTMASTERS AT JOINT MEETING

Over 40 Toastmasters met at the joint meeting of Convair and Gaveleers clubs Feb. 22 in the Astro dining room. The guest club, Gaveleers, draws most of its membership from airline personnel.

Highlight of the evening was a reading speech, "Eros Revisited," by Charles Willits, Convair SD senior engineer.

There are a few openings in the Convair Toastmasters group for SD and Astro men interested in speaking. Weekly dinner meetings are held Mondays at 6 p.m. in the Astronautics executive dining room. For information call Till Schafer, club secretary, at ext. 1887, Plant 1.

World Series Film Scheduled Tuesday

Baseball fans at Convair SD and Astro are invited to attend a showing of the film, "Highlights of the 1959 World Series," next Tuesday (March 8) at 7:30 p.m. in the CRA Clubhouse, Gillespie Field.

Although the sound and color feature-length film is part of the entertainment planned for a meeting of the Convair Gun Club, any interested baseball fans at Convair SD and Astro are invited, according to Jack Swank, SD CRA commissioner.

Two SD Hoop Squads Lose League Tilts

Convair SD's basketball entry in the city Metro League lost its first league game Feb. 18, dropping a 38-31 decision to Monroe Clark.

Both teams went into the game tied for the league lead. Games played late last week decided the outcome of the championship race. Only if Monroe Clark lost one of its two remaining games and Convair won both games will a playoff tilt be necessary.

Also suffering its first league loss was Convair's Tool Manufacturing entry in the Industrial A league. They lost to Ryan, 39-32. In this league, however, Tool Manufacturing has already won the first round. Should they lose the second round, a playoff game will be necessary to decide the championship.

Only Convair team to continue its winning ways in league play was the girls' squad which romped to a 72-23 victory over the Black Angels. If the Convair gals won a final league game played early this week they will finish the season undefeated.

In exhibition games the SD gals won four of six games. Victories were over MCRD, 77-18; Long Beach Blue Jays, 51-32; NAS, 45-36; and Naval Station, 55-14. Losses were to NTC, 54-49, and the Long Beach Blues, 61-40.

In shop league competition Dept. 6 Electrical emerged winner of the first round, piling up six straight victories. In their last two outings they clipped Dept. 6 Physics, 32-29, and Dept. 280 Mockup 52-34.

Ranked in second place after the first round were the 880 Jets with five wins and a lone defeat. Their latest victories were over Dept. 280 Mockup, 48-39, and Dept. 6 Physics, 42-36. Dept. 6 Physics lost both of their last two games to land in third place.

Portrait Workshop At Camera Meeting

A portrait lighting workshop will highlight the March 14 meeting of the Convair SD Camera Club at 7:30 in the Photo Arts Bldg., Balboa Park.

One hour of demonstration will be followed by open shooting and coffee. Models will be on hand and visitors are welcome to attend the session. Only requirements are cameras and plenty of film.

SD, Astro Players Share Honors In CRA Badminton Championships

Champions were almost evenly divided between Astronautics and San Diego badminton players taking part in the second annual CRA championship tournament held Feb. 20 in Balboa Park.

The tournament drew 20 competitors including a good number of novice players.

Dick Mitchell (Astro 130) won the men's "A" singles title over Bob Wells (SD Air Force) by 11-15, 15-11, 15-2. Consolation honors in this bracket went to Dennis Sealey (SD 6) with a 15-9, 10-15, 15-6 win over Fred Minter (SD 92).

Carol Minter, daughter of Fred Minter, won the ladies singles in a 11-4, 11-4 match with Evelyn Mitchell, wife of Dick Mitchell.

Dan Bain (Astro 270) copped the men's "B" singles in a 15-9, 15-4 encounter with Alan Van Norman (SD 6). Bob Johnson (Astro 216) won the consolation bracket in a 15-5, 15-11 set with Bob Hansen (Astro 561).

Wells teamed with Al Pfennighausen (Astro 321) to take the men's doubles, 15-10, 6-15, 18-17, over Sealey and Minter. Tom Hill (Astro 327) and Jim Hill, son of Astro's Ernestine Hill (772), won the consolation doubles title by downing Milt Rettig (Astro 556) and Bryon Young (SD 6) by 15-0, 15-0.

Carol Minter joined Anita Oseng (Astro 272) in topping Evelyn Mitchell and Florence Carlson, wife of Buster Carlson (Astro 556) by 15-12, 15-11 in the women's doubles event.

Minter and Minter won the mixed doubles with a 15-3, 9-15, 18-17 set over the Mitchells. Consolation honors were garnered by Sealey and his wife, Hilda, over Bain and Oseng, 15-2, 15-5.

Jim Hill also won the novice division in a 15-1, 15-0 match with Ray Trent (SD 7).

New Charm School To Start March 16

Opening of the new beginning charm school course for Convair SD women has been delayed two weeks, to March 16, to give SD wives and daughters, as well as employees, a chance to register.

Martha Woodberry, CRA commissioner of women's activities, urges everyone interested to sign up immediately at San Diego employee services, either plant.

Charge for the CRA-subsidized course is $8.50 each, to be paid at registration.

The course will run for six weeks on Wednesday evenings, 7-9 p.m., in the House of Hospitality, Balboa Park, with Edith Antelline, SD charm school director, as instructor.



WHOPPER — Derek Walton (Dept. 6) displays 10-lb. lobster caught during recent lobster diving contest at Bird Rock in La Jolla. Catch took top individual honors in contest.

CRA Sports & Recreation Convairiety

April Dates for Yater; Ramsdale Leads Golfers

Golfers at Convair SD were reminded this week to reserve dates next month for the annual Yater Memorial tournament, top medal play competition sponsored by CRA.

The Yater will be played April 2-3 and 9-10 at Flying Hills. Ken Wulfemeyer, golf commissioner, asked linksmen to reserve both weekends to compete in the event.

Entries will be taken through this Friday (March 4) for the CRA sweepstakes to be held March 12-13 at Bonita. Entries should be phoned to ext. 1705, Plant 1.

Wulfemeyer also said that the tourney held Feb. 6-7 at Rancho Sante Fe will be the last to be played at the course during 1960 because of an increase in green fees. He said negotiations to hold a sweeps during 1961 at Rancho will be attempted.

Pars were somewhat scarce at the February tourney. Dick Ramsdale (Dept. 267) turned in the best card of the day, a 76 stroke total, to win low gross honors. Runner-up was Stan Gmyr (Dept. 15) who posted a 79. Ralph Long (Dept. 218) and Bob Dodson (Dept. 31) tied for third low gross with 81s.

Three linksmen tied for low net honors with 73s. They were Bill Brask (Dept. 6), Doc Larman (Dept. 180) and George Putness (Dept. 6).

Arnold Driver (Dept. 31) toured the course in 83 strokes to win low gross honors in the second handicap group. He was followed by Paul Castillo (Dept. 400) with an 87 and J. D. Meacham (Dept. 15) who stroked an 88. Low net winners were Jerome Speratos (Dept. 401) with a 68 and Lynn Richardson (Dept. 401) and J. W. Fitzgerald (Dept. 6) who tied with 72s.

In the 19 and over handicap group Art Conley (Dept. 231) took honors with an 86. Runners-up were Joe Odaffer (Dept. 15) with a 96 and Gene Balciwicz (Dept. 8) with 99.

Filling out low net winners were Adrian Desrosiers (Dept. 231), Jim Loos (Dept. 6), and Charles Keys (Dept. 15) with respective scores of 66, 73 and 75.

Walton Wins Meet With Top Lobster

A 10-lb. lobster caught by Derek Walton (Dept. 6), a member of the CRA Delta Divers, recently took first place in a lobster diving contest at Bird Rock in La Jolla.

Allen Jones, president of the Delta Divers, said members of six diving clubs in the San Diego area competed in the event. Walton's catch won top individual honors in the competition.

Delta Divers members also competed in a spearfishing contest Feb. 28. Next meeting for the club will be held March 29.

Tickets Now On Sale For Fashion Show

An array of spring fashions will be spread before the eyes of Convair SD women at the March 29 style show, "Calendar Capers," sponsored by the Industrial Recreation Council of San Diego.

A limited number of tickets, at $1.25 each, are still available at employee services, both plants, said Martha Woodberry, CRA commissioner of women's activities and chairman of the show.

Joyce Wilfert of Dept. 11 will represent Convair SD as one of the models. Others of the 20 girls displaying the new spring styles, from sports wear to formal dress, will be chosen from other San Diego businesses and industries, all members of the IRC.

Feature of the show will be styles from 1912 and on, modeled by members of the San Diego Horseless Carriage Club.

Edith Antelline, well-known SD charm school director, will commentate on the fashions furnished by Evelyn Wigton's stores in Pacific Beach, Lemon Grove, El Cajon, and National City. Background music will be played by William Appleton of Thearle's Music Co.

Dessert refreshments will be served and door prizes awarded at the affair, to start at 8 p.m., in the Palm Room of the U. S. Grant Hotel.

Six Share Honors At Archery Shoot

Winners in six classes headed entries in a trophy shoot sponsored by the Convair SD Archery Club Feb. 14 on the field range of the El Cajon Archery Club.

The competition was a standard field round with official National Field Archer's Association classifications.

Harry Ross took first place in the championship event and Al Phipps took first in Class A. Other winners were Tom Boling, Class B; Bud Bence, Class C; Ruth Ribby, Class D; and Mike English, Little Beaver.

CRA Calendar

(Convair SD Recreation Association has some 40 activities in operation. For information on SD sports, call CRA headquarters, ext. 1245, Plant 1.)

★ ★ ★

ASTROMONY CLUB — Films to be shown at meeting Friday (March 18), 8 p.m., CRA Clubhouse, Gillespie Field.

BOWLING—Annual championship tourney March 5-6, 12-13 and 19-20 at Pacific Recreation.

BRIDGE CLUB—Next session Tuesday (March 15), 7:30 p.m., Hotel Barcelona, Fourth and Juniper.

CHORALAIRES — Rehearsals each Monday evening at 7:30 in CRA Clubhouse, Pacific Hwy.

COIN CLUB—Guest speaker at meeting Tuesday (March 15), 8 p.m., Hearing Aid Society Bldg., 3843 Herbert St.

GOLF — Entries open through March 4 at ext. 1705, Plant 1, for SD CRA sweeps March 12-13 at Bonita.

GUN CLUB — Film on Highlights of 1959 World Series" to be shown at meeting Tuesday (March 8), 7:30 p.m., CRA Clubhouse, Gillespie Field.

ICE SKATING—Convair night every Thursday; discount rates between 6:30 and 8 p.m. at Iceland, 6055 Lake Murray Blvd.

JEEP CLUB—Trip to Harper's Flat Sunday (March 13). Caravan leaves Scissors Crossing on Hwy. 78 at 8:30 a.m.

JUDO—Workouts every Thursday, 7:30 p.m., CRA Clubhouse, Pacific Hwy.

MOVIES — Reduced-price movies each Tuesday night at Academy Theater, 3721 University Ave. Admission: adults 25¢; children, 15¢.

PISTOL CLUB — Next shoot Sunday (March 13), 9 a.m., San Diego Police Pistol Range, Federal Blvd. and Home Ave.

RADIO CLUB — Meeting tomorrow night (March 3) 7:30 p.m., Harbor Drive headquarters.

ROCKHOUND CLUB — Field trip to Sheep Springs and Rainbow Ridge March 12-13. Meeting Thursday (March 10), 7:30 p.m., CRA Clubhouse, Gillespie Field.

SPORTS CAR CLUB — Meeting tonight (March 2), 7:30 p.m., Natural History Museum, Balboa Park.

STAMP CLUB — Meeting tomorrow (March 3), 7:30 p.m., Conference Bldg., Balboa Park.

SWIMMING — Free family swim night Saturday (March 5), 7-9 p.m., Mission Beach Plunge.

WATER SKI CLUB—Potluck supper and meeting Monday (March 14), 6:45 p.m., CRA Clubhouse, Gillespie Field.

WOMEN'S ACTIVITIES — Beginning charm school starts March 16, 7 p.m., Balboa Park House of Hospitality. Tickets for Industrial Recreation Council fashion show March 29 on sale now at employee services, Plants 1 and 2.

CARROLL COPS TWO SD PISTOL EVENTS

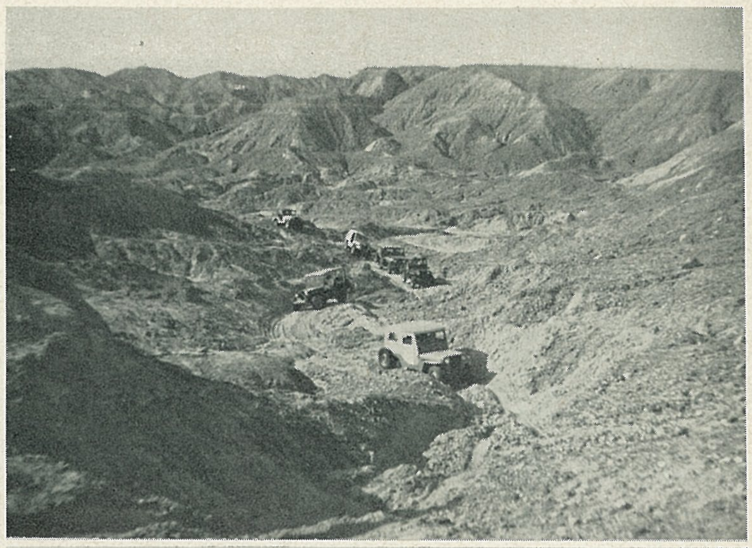
Pistol Club members at Convair SD are taking advantage of balmy weather to turn out in greater numbers at Sunday shoots, Ash Bishop, commissioner, reports.

J. B. Carroll (Dept. 3-1) took double honors at a shoot Feb. 14. He won the master class with a score of 288 points, followed up with a first place in the short national match event.

Runner-up in the master class was Jim Halfacre (Dept. 180) with 286 points. Ralph Picard (Dept. 7) placed second in the short nationals with 260 points.

In the expert class, three members tallied 278 scores. They were Ash Bishop (Dept. 401-5), Dale Young (Dept. 31) and Carl Hornburg (Dept. 139).

Harvey Ingalls (Dept. 6) led the sharpshooter class with 258 points, followed by Dorcus Utter (wife of Arley Utter, Dept. 129) with 257.





ROUGH ROAD AHEAD—Rough Riders Run, sponsored by San Diego Ridgerunners and Convair Jeep Club, last month attracted some 90 entries and over 300 persons. Jaunt over 22 miles of Borrego Badlands took drivers 14 hours to complete. Bottom photo shows starting point activity at Truckhaven on Hwy. 99.

Water Skiers to Launch Season With Potluck Supper, Meeting

Water skiers at Convair SD will launch the spring season with a potluck supper and meeting Monday (March 14) at 6:45 p.m. in the CRA Clubhouse, Gillespie Field.

Any Convair folk interested in joining the Water Ski Club are invited to attend the affair, according to Tom Mathews, commissioner.

To make menu arrangements contact either Joan Sevigny, BR-3-0828 or Mary Ann Mathews, BR-7-1017.

Mathews said a program of activities will be planned for the summer, including dates for a tournament opener with the Carlsbad Boat and Ski Club sometime in April.

The club has two boats. One is being equipped with a Chevrolet V-8 engine by G. Arleigh Riggs (Dept. 6). Mathews said the boat will be equipped with a custom transmission permitting forward, neutral, and reverse positions.

The other boat is a Kettenburg Sweet Sixteen, equipped with a Chrysler Ace, which is the club's "workhorse."

Beginners again this year will be given an opportunity to learn how to water ski free of charge, Mathews added. One month (dates to be decided) will be set aside for instructions. Skis and ropes will be furnished and all safety precautions observed.

Additional information, on either the potluck supper or other club activities, can be obtained by contacting Gene Sevigny, club commodore, BR-3-0828.

Pomona Hoopsters Topple SD, Astro

Convair San Diego placed second and Astronautics was ranked fourth in the all-Convair basketball tourney held in Pomona Feb. 20-21.

Astro dropped games with San Diego, 59-38, and Antelope Valley, 41-40. Convair SD lost its second game, against Pomona, 83-74, blowing a 10-point, halftime lead. Pomona, winner of the tourney, knocked off Antelope Valley for its opening round victory.



BUTTON WINNERS—R. W. Menzie, Fishing Club commissioner, passed out button awards at meeting Feb. 16 for top catches registered by Convair SD folk last year. Winners (from left) are: Lynn Schultz (Dept. 31), Glenn Grantham (Dept. 101), W. C. Bowen (Dept. 188) and C. L. Moore (Dept. 21-2).

SD Travel Trailers Now Forming Group

Any Convair SD folk owning either camping trailers or pickup trucks equipped with campsters may be interested in joining a new club now being organized.

Purpose of the group will be to band togther for weekend outings into the desert and other similar trips.

Those interested in joining the group are asked to attend an organizational meeting tomorrow night (March 3) at 7 p.m. in the CRA Clubhouse, 3401 Pacific Hwy.

For some time the SD enthusiasts have been meeting with the Astronautics Travelers. Additional information can be obtained by contacting Pete Beyrer, ext. 1245, Plant 1.

Harper's Flat Goal For Jeep Clubbers

Members of Convair SD's Jeep Club and the San Diego Ridgerunners have scheduled a trip through Pinian Mountain to Harper's Flat Sunday (March 13), Art Thomas, club spokesman, reports.

The outing will be a "family" affair. Jeeps are scheduled to leave Scissors Crossing on Hwy. 78 at 8:30 a.m. The crossing is located about 12 miles from Julian.

Thomas said plans were drawn up at the last meeting for the publication of a monthly paper of interest to all jeep owners that will list scheduled outings sponsored by various jeep clubs as well as give mechanical tips for upkeep of jeeps.



WARM WELCOME — Delta Air Lines' first 880 is receiving excited attention wherever it lands. Curious file through plane, as in above photo.

Survival Kit For Dunked F-106 Pilots Tried Out by Hardy San Diego Souls

Convair San Diego dynamics laboratories' engineers have been "crash landing" into San Diego Bay recently during tests of the global survival kit which is going into production F-106s.

Jumping into chilly water loaded down with 71 lbs. of gear, combined weight of a packed parachute and attached survival kit, J. R. Donahue and Frank Brown, both Dept. 6, duplicated conditions which would face pilots forced to ditch their planes. The only difference was that pilots would be wearing their warm pressurized suits rather than the scanty rubber diving garb of the "guinea pigs."

As they hit the water, test engineers, playing the part of pilots, jerk a yellow handle on the right side of the kit to trigger it into action. The top comes off, a life raft is automatically inflated, personnel leads (oxygen hose, communication and heater lines) separate from pilot's helmet, and kit and contents drop to the end of the 25-foot nylon tape attached to the parachute harness—out of the way of the plunging pilot.

By the time the pilot surfaces, the life raft is within reach. The kit top, a brightly-painted phosphorescent red shield which acts as a signal to searching aircraft, bobs nearby, still attached to the tape, or lanyard. Safely ensconced in the raft, the pilot can pull in, hand over hand, the kit with its "goodies" neatly packed in a waterproof sack.

Contents vary with terrain of air missions. For instance, planes sent over water are equipped with kits containing life rafts and fishing equipment, while those flying over wild mountainous areas have rifles instead of rafts. All kits contain radios, sun reflectors, flares, water purifiers, first aid supplies, concentrated foods. Main purpose of all kit assemblies is to help the pilot live off the land or water until he can reach civilization or is rescued.

The kit itself is a 19x19-inch square fiber glass case installed in the F-106 as the cushion of the ejection seat. With the foam rubber cushion it is about 10 inches in height. The kit goes with the pilot in normal ejection. After the ejection seat is separated from the pilot and his parachute opens, he drifts down to under 2,000 feet before pulling the yellow release handle to activate the kit.

An emergency oxygen supply in the survival kit provides the pilot with enough oxygen for breathing and pressurizing of his suit when he ejects at high altitudes. The kit's oxygen supply also can be used within the plane at any time it is needed by pulling the "green apple" knob, emergency oxygen manual release. The emergency supply, enough for 15 minutes, would last long enough for the pilot to get his plane, or himself, down to safe altitudes.

During Convair SD qualification tests, in progress the last two months, Donahue played the part of a pilot ejected from a plane. He swung in a parachute harness suspended from the rafters of the structural test laboratory building at the SD seaplane ramp to check out operation of the kit's mechanism while in a hanging position.

Other tests performed in the dynamics lab under direction of Morris Walters subjected the kit to environmental tests to see how well it would stand up under temperatures ranging from plus 175 degrees Fahrenheit to minus 65 degrees, and different levels of humidity. It was also checked for reaction to the plane's vibration and to the high gravity forces it would meet when ejected with a pilot's weight at high altitudes. The entire test program has been under supervision of H. B. Bard, components group assistant test group engineer of SD dynamics laboratories.



"SURVIVOR"—Frank Brown of Convair SD dynamics lab, shows neat fit of rubber life raft during F-106 survival kit tests in San Diego Bay. Test engineers looking over kit contents are (center) Morris Walters, who directed testing, and Clarence Mascari.

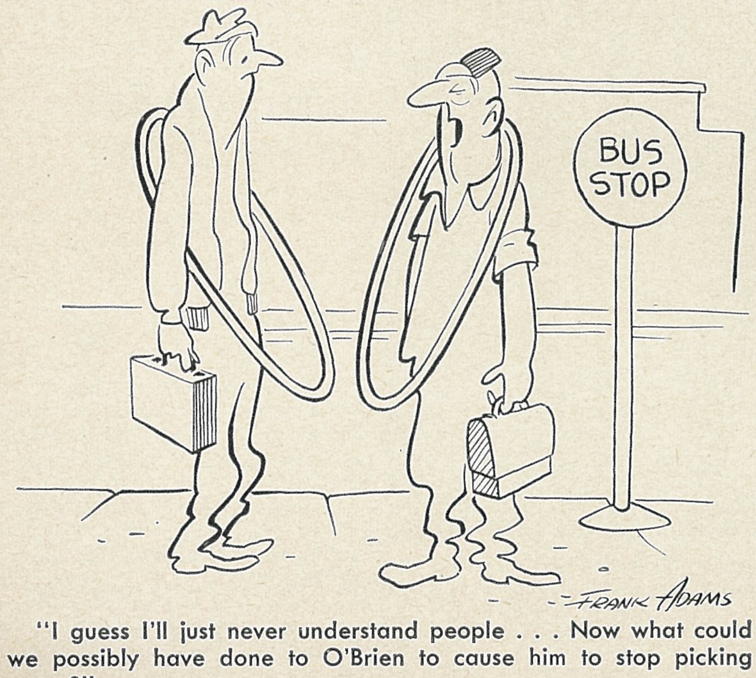
Prompt Action by Six FW Men Prevents Serious J-4 Fuel Fire

Quick action of six Convair Fort Worth employees, when they extinguished flaming J-4 fuel in something less than two minutes, merited personal letters of commendation from Frank W. Davis, Convair vice president and FW manager.

The fuel spilled on a hot tractor exhaust muffler behind a truck driven by T. Brown, Dept. 20-2. It ignited immediately. Brown leaped from the truck and grabbed a fire extinguisher.

Rushing to his aid with other extinguishers were W. L. Fuller, F. W. Worden, J. H. Ridlehuber and C. E. Cofer, all of Dept. 20-2, and J. P. King of Dept. 64.

In about a minute and one-half the fire was virtually extinguished, with wrap-up safety measures being carried out by the fire department.



"I guess I'll just never understand people . . . Now what could we possibly have done to O'Brien to cause him to stop picking us up?"

Collegians Inspect SD Assembly Lines

Aviation-minded students at San Diego State College toured Convair San Diego's plants last month to get a first-hand glimpse of planes in the making.

Over 40 young men and women, members of the Arnold Air Society and Angel Flight chapters at State College, saw the Convair 880 mockup and production line at Plant 1 and F-106 final assembly area at Plant 2. They also were briefed on both Convair's jet transports and jet interceptors by customer service representatives in the customer training section.

'Silent' Flyby Amazes Crowd as 880 Flashes Across Finish at Miami

"I've never seen alligators and real estate go by so fast," B. F. Coggan, Convair vice president and San Diego manager, commented in describing how Delta Air Lines' first Convair 880 swept over the everglades and into Miami, Fla., recently to break the transcontinental transport speed record.

"To qualify for the speed record we had to be below 500 feet while passing the tower at Miami airport," explained Coggan, "and as soon as we reached the Florida coast the pilot (Capt. T. P. Ball) came down until he was almost flying 'on the deck.'"

Power on all the engines was reduced as the gleaming white 880 made its high speed low level pass over the airport so that the huge plane sailed like a silent shadow over the amazed crowds below. (The silent flyby is known in Convair parlance as the "Las Vegas," after the same maneuver proved so effective when first used at the World Congress of Flight in Las Vegas last spring.)

Then Captain Ball pointed the plane toward the sky to execute a steep climbing turn before coming back to land.

"Cheers were heard as the plane was opened at the ramp," recounted L. J. Bordelon, SD chief of transport service, also along on the delivery flight. "Hundreds clambered over every part of the plane during the stopover. A double check had to be made before we took off for Atlanta, Ga., to be sure no one was stuck in the engines!"

The Delta 880 reached Atlanta about 8 p.m. with everyone relaxed and enjoying the last leg of the flight, knowing that they had beaten the cross-country transport record by 27 minutes. Captain Ball apologized to those aboard for only going a little more than 600 mph because of turbulence.

Hundreds of Delta Air Lines families were on hand to greet the "Delta Queen." "Mothers, fathers, and children trooped in and out of the plane," Coggan recalled. "And I saw many of the youngsters make more than one trip through the plane."

During the fast San Diego-Miami flight the time actually dragged, Bordelon said. "Everyone was so keyed up and tense that each minute ticking away seemed like an hour.

"We tried to pass the time talking, but couldn't keep our minds off the clock."

According to Bordelon's log of the trip, 11 minutes after takeoff the plane was beyond the Laguna Mountains, out of the overcast, heading for 33,000 feet. Three minutes later it was still in the climb over the Salton Sea. At 10:30 a.m., just 19 minutes after leaving San Diego, the 880 passed over Yuma, Ariz. Fifteen minutes later coffee was served over Gila Bend and Tucson whizzed beneath at 10:49 with the plane traveling at 738 mph, ground speed.

At 11:10, roughly an hour after takeoff, it was over El Paso, Texas. There the passengers had a chance to see an image of the aerodynamic shock wave, which appeared clearly visible on the left wing. "The sun was shining just right in the blue Texas sky," described Bordelon, "so that the shadow of the shock wave could be seen as a thin, dark, wavy line." This is a characteristic of high speed wings, but is not generally seen, and only the shadow is ever visible.

At noon the Gulf of Mexico was sighted and five minutes later the plane passed over Houston. There calculations were made, proving that "Texas is just 58 minutes wide," in the words of C. E. Woolman, Delta president.

At 12:30 p.m. the plane was south of New Orleans when favorable winds decreased. It took some eight minutes to cross the state of Florida, letting down for Miami all the way across.

"Ralph Bayless (Convair director of engineering) was on board checking fuel consumption," said Coggan, "and long before reaching Miami we knew we had plenty of reserves, even enough to go on to Havana, Cuba. We discussed going on, but decided not to as it would have negated our official transcontinental speed record."

Bordelon said that the Convair 880 flies just the way it looks—smooth! "Most noticeable features are its rapid response and fast acceleration. When the power was applied, we moved. It is extremely maneuverable, the kind of a plane pilots love.

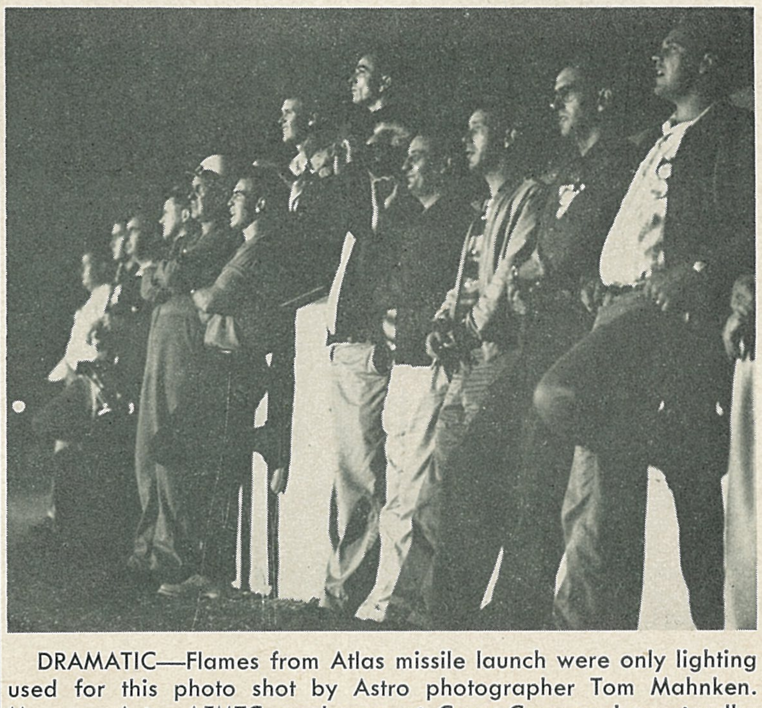
"All in all, the whole trip was just like a scheduled flight—uneventful. The Convair 880 performed just the way it was supposed to!"

Daily reports received by Bordelon's office show that the 880 is now flying an average of eight hours a day in pilot training. Mel Clause, SD field service assistant supervisor, remained in Atlanta a short time to assist other Convair SD representatives, Robert Fitzgerald, Court Zeiss, and Walter Bellaston, with support operations.

SD Engineer Winner In Design Contest

Richard F. Summers, SD design engineer, has won an Award of Merit ($100 and a certificate) from "Materials in Design Engineering Magazine" in a contest for best use of materials in product design.

Summers' entry involved Flex-Support door seals in the 880, a new design concept. Convair has filed for a patent on the device.



DRAMATIC—Flames from Atlas missile launch were only lighting used for this photo shot by Astro photographer Tom Mahnken. Men are Astro AFMTC employees at Cape Canaveral on standby duty. They are almost mile away from launch site, ready to return to perform tasks as needed.

C-V CONVAIR

Published every other Wednesday.

GD GENERAL DYNAMICS

Convair Division of General Dynamics Corporation.

Convairiety

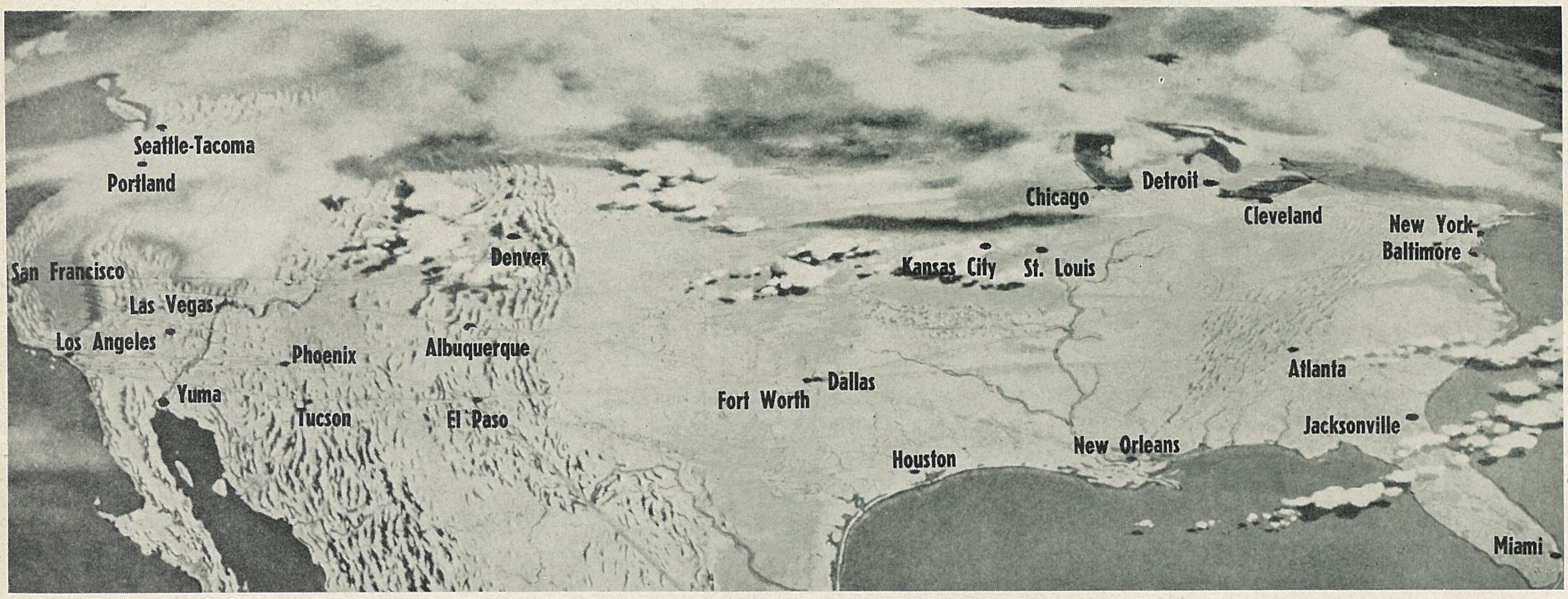
San Diego EDITION

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SAN DIEGO, POMONA, ANTELOPE VALLEY, VANDENBERG AFB, CALIF. AFMTC, CAPE CANAVERAL, FLA., FORT WORTH, TEX.



880 ON TOUR—Shown here are cities which jet 880 will visit on "functional and reliability" flights for FAA, during which it will show performance over actual airline routes. Flights will vary from 150 miles to coast-to-coast. Before this flight series, however, 880 will fly north in search of freezing weather in order to demonstrate effectiveness of de-icing systems. Exact destination had not been determined at press time.

880 Will Visit Key Airports On FAA Flights

An 880 jet transport will be seen at airports in at least 16 states within the next few weeks as it is flown over actual airline routes.

Plane No. 4 is due to enter functional and reliability testing (F&R) soon for Federal Aviation Agency certification of performance for passenger flights.

First task will see the Convair-built white and gold 880 going to a cold weather area, either in the Pacific Northwest or Great Lakes region, said flight engineers. There, wherever the weather is "worst," the jet transport will be flown to see how well it performs under severe icing conditions.

Following the icing flights, it will be taken on a series of flights to all parts of the country, laid out over regular Delta Air Lines and TWA routes. The flights will be of different distances to demonstrate the 880's short, medium, and long-range capabilities. Distances will range from hops of 150 miles to coast-to-coast nonstop flights.

During the F&R flights, the jetliner will sit down at 25 airports. Cities it will visit are Los Angeles, San Francisco, Seattle-Tacoma, Las Vegas, Phoenix, Tucson, Yuma, Denver, Albuquerque, Kansas City, St. Louis, Chicago, Detroit, Cleveland, New York, Baltimore, Miami, Jacksonville, Atlanta, New Orleans, Houston, Dallas, Fort Worth, and El Paso.

At least two additional flight crews will alternate with the plane's regular crew of W. D. Carrier, pilot; W. M. Harse, copilot; R. J. Palk, flight test engineer; and J. L. Fogleman, flight engineer. On board will be observers from FAA, Delta, TWA, General Electric, as well as Convair SD engineers and flight personnel.

Plane No. 1, first 880 off the line, last week completed its stability and control program for FAA certification. It made its first flight a year ago, Jan. 27, with Don Germeraad, chief engineering test pilot, at the controls.

It was scheduled for lay-up this week to be modified to the 880 version for Capital Airlines. It will be spotted in the experimental yard at Plant 1. There, leading edge wing slats, vertical stabilizer, power-boosted rudder of the same type which had been designed for the Convair 600 will be installed. The modified 880 will be powered by the General Electric CJ-805-3B, improved version of the present 880 GE engine.

The plane is expected to go back into flight the first part of July.

Now in FAA certification, plane No. 3 is nearing completion of takeoff and landing schedules at Edwards AFB. It will go next to Albuquerque, N.M., for high altitude takeoffs and landings.

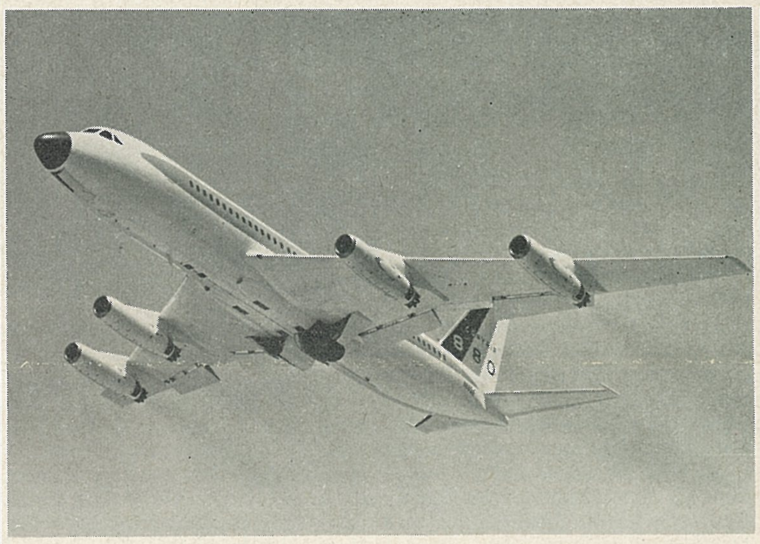
Dates in April Chosen For U.S. Bonds Campaign

All Convair operating divisions will conduct campaigns the week of April 4-8 to increase participation in U.S. Savings Bonds buying by payroll deduction.

All non-buyers will be given sign-up cards to facilitate authorizing regular deductions.

Currently, Fort Worth leads the rest of Convair with 62 per cent participation. San Diego is next with 50 per cent, followed by Pomona at 45 per cent and Astronautics at 34 per cent.

During 1959 Convair SD bond buyers authorized deductions totaling \$4½ million, involving a total of 123,000 individual bonds issued. At Astronautics employees are saving \$172,000 a month by bond buying and during 1959 authorized deductions of more than \$2 million. At Pomona approximately 2,760 buy bonds regularly by deduction, the bulk of them ordering \$25 bonds. However, 447 are buying \$50 bonds, about 600 are purchasing \$100 bonds and three are buying \$500 bonds. In 1959 at Pomona deductions for bonds amounted to almost \$1 million. (For "question and answer" bond information, see page 8.)



TRAVELER—This will be most widely viewed 880—at least until planes are operating on airline schedules. This is No. 4, scheduled to leave soon on extensive performance routine for FAA.

Speedy Spares System Applied to 340s, 440s

Spare parts orders to support Convair San Diego's twin-engine transports are now getting the same speedy processing as those for the Convair 880 jetliners—via the streamlined transceiver system.

Harold Wolfe, general supervisor of service parts, this month announced completion of a three-month conversion program that will enable the department to process twin-engine spare parts orders through the transceiver punched card communication system.

Considered one of the most advanced in the industry, the system speeds the many steps required to process spares orders and is roughly four times as fast as the old method.

Spare parts orders for the twin-engine Convair-Liners continue to represent a sizable business at Convair SD. In fact, during the past 10 years, orders for parts have mounted steadily as the planes pile up airline miles. The twin-engine program is expected to continue at somewhere near its present rate for several more years.

Spare parts orders received last year for the Convair-Liners amounted to some \$3½ million. A solid 90 per cent of the items were taken "off the shelf" for shipment. In other words, they were available for immediate delivery at the Rose Canyon Bldg. 2 warehouse where parts are received, stored and delivered.

Converting the commercial twin-engine parts ordering program to the new method was somewhat of a major undertaking. All information in a dictionary-thick parts price catalogue had to be transposed onto key-punched tab cards. Involved were some 24,000 spare parts items.

"Decks" of these procurement data cards have been and are (Continued on Page 2)



CONVERTED—Shirley Horton of Convair SD's service parts sorts through procurement data cards that will allow twin-engine spare parts orders to be processed via same transceiver network used for 880 jetliner orders. Some 24,000 spares items were converted from parts price catalogue onto key-punched cards.

SD Develops Special Machines To Shape Honeycomb Sections

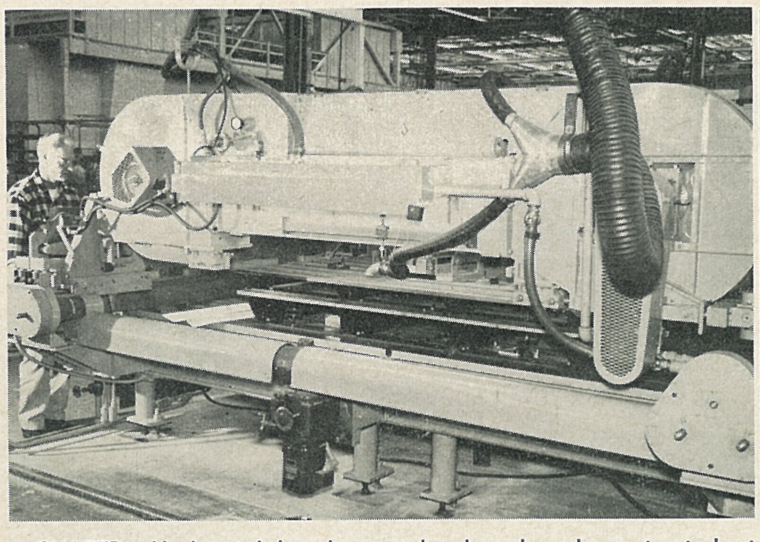
Two machines developed by Convair San Diego tool design engineers now are in operation at Plant 1, shaping honeycomb sections for Convair jet transports.

A large horizontal band saw and a gantry router have been designed and built at Convair SD especially for cutting and shaping honeycomb which goes into flaps, ailerons, spoilers, and trailing edges of Convair 880s and 600s.

The horizontal band saw, which will cut through a honeycomb section five feet in width, replaces the standard vertical saws which could not cut pieces over 14 inches wide. The new saw, designed by SD tool designers under supervision of S. E. Smith, also is speedier than saws formerly used. Band saw wheels are driven by an air motor through belt and pulley reduction at speeds of 7,500 to 10,000 feet per minute.

Cutting to extremely close tolerances, it can make flat, contoured, or a combination of the two (compound contour) cuts across the width and length of honeycomb sections.

The gantry router with its 6-ft. (Continued on Page 2)



SHAPER—Horizontal band saw, developed and constructed at Convair San Diego for contouring and shaping of honeycomb used in jet transport panels, is in operation in Bldg. 3 at Plant 1. Operating new machine is Charles Wilson of Dept. 119. Large tube in right foreground is part of vacuum assembly to suck up shavings.

SD Develops Special Machines To Shape Honeycomb Sections

(Continued from Page 1)
by 20-ft. table can handle sections for large honeycomb panels which go into Convair 600 parts, such as the 13-ft. panel for each 600 trailing edge. Honeycomb pieces placed in frame-like fixtures can be contoured or tapered or cut in a combination of the two processes. The cutter rides on a carriage, either lengthwise or widthwise, across the table.

The honeycomb itself is vendor supplied and comes in blocks as large as 4x6 feet in size and from two to eight inches thick.

Both cutting machines now are turning out shaped honeycomb sections in the newly-formed Dept. 119, metalbond fabrication and assembly, in Bldg. 3 at Plant 1.

Directly responsible for design of the two machines was Wes Young of tool design. SD tooling constructed the router and plant engineering built the horizontal band saw.

★ ★ ★

New SD Bonding Dept. Created

A new department (Dept. 119) was activated this month at Convair San Diego for fabrication of components for Convair's jet transports.

The new department, metalbond fabrication and assembly, will be responsible for honeycomb panel assemblies for the Convair 600 and metal-to-metal bond assemblies for both 880s and 600s.

This type of work had been done, up to this time, within Dept. 129. However, because of the increased number of assemblies which will be made within the plant instead of being subcontracted, more manufacturing area is required, making it necessary to separate bonding operations and plastics into two separate functions, explained H. G. Rote, superintendent of 880 final assembly.

Dept. 119 now includes 75 men, mostly transfers from plastics, with M. F. Link, foreman, reporting to Rote. Number of employees probably will be doubled within the next six months in view of prospective work for the jet transport program, forecast Rote.

The department is located in the southeast part of Bldg. 3 at Plant 1. It will expand into space vacated as Dept. 129, now known as plastics and trim, is moved into Bldg. 4 in the near future. Also slated to move out of Bldg. 3 mezzanine into the Bldg. 4 area is the soundproofing and interior trim assembly task formerly assigned to Dept. 117. Tubing and cable assembly manufacture will remain as Dept. 117 in the present Bldg. 3 location.

L. W. Stamper will be foreman of Dept. 129, plastics and trim, while both Dept. 117, tubing and cable, and Dept. 116, electric bench, will be under R. V. Brunner, foreman.

Wood Mockup Of 880 Gets New Interior

The wooden mockup of the Convair 880 jet transport in Bldg. 69 at Convair San Diego's Plant 1 is closed for remodeling.

A completely new interior is being installed in the huge passenger cabin of the simulated 880, used for sales demonstrations. The new Dorothy Draper, Inc. interior will feature beige walls contrasting with a blue ceiling. Seats will be of orange and blue fabric set off by the carpet in leopard-skin design.

A crew of seven expert mockup and tooling builders under Don Eby, assistant foreman, are busy with the renovation work, which will take about six weeks altogether. F. N. Shepard, Dept. 401 foreman, said that the remodeled interior will be completed and the mockup reopened by the first part of April.

Original interior of the 880 mockup, also designed by Dorothy Draper, Inc., of New York City, well-known designer and decorator, had been viewed by hundreds of visitors and prospective customers during the last two and a half years. The full-scale mockup was completed in the fall of 1957.

SD Con-Trib Donates For Easter Seals

Members of Convair San Diego's Con-Trib-Club may consider their Easter Seals already paid for, according to Keith Sears, Con-Trib-Club secretary. Con-Trib-Club has approved a $4,000 gift to the 1960 drive for the San Diego Society for Crippled Children.

★ **Convairiety** ★

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Pomona Editorial Offices, Room K-222, Bldg. 2, ext. 6226, mail zone 3-8. Staff: James Combs Jr., news editor; Dorothy Keller.

Antelope Valley Editorial Office, Room 103, Bldg. 301 B, Palmdale, ext. 337. Staff: Richard L. Millett.

SD Is Second, Astro Third, In '59 Safety

Convair San Diego placed second and Convair Astronautics was third in the Aeronautical Industries Section of the National Safety Council contest for 1959.

The two operating divisions compete in Group A of the "Complete Aircraft Manufacturing" section. Competing in Group B (less than four million manhours worked), Convair Pomona placed third.

SD's accident frequency rate was .43, while Astronautics' was .51. The national average for the industry was 1.44, about one and one-half disabling accidents per million manhours worked.

Ryan Aeronautical Co. of San Diego was first in Group A with a perfect record of no disabling accidents.

NEW DEPT. FORMED TO SERVICE JETS AFTER DELIVERY

L. R. House is heading a new department in the Convair jet transport program at Convair San Diego, according to a recent announcement by Conrad Kunze, SD assistant manager-operations.

As chief of the new department (Dept. 179), "jet transport post production service," House will be in charge of changes going into Convair 880s and 600s after delivery to customer airlines. He reports to P. G. Osborn, factory manager.

Customer service mechanics will be sent from Convair SD to airline locations to install latest changes in Convair jet transports whenever necessary.

House handled a similar organization in the fighter-interceptor program at Convair SD when he administered the post production service for F-102s and F-106s from 1956 to 1958. Since that time he had been foreman of 880 proofing and mockup. A longtime Convair man, House joined Convair San Diego 21 years ago. For two years, 1943-45, he was based at the Santa Ana Feeder Shop for Convair.

Assisting him in his new duties is George Zelno, assistant foreman, who has transferred from Dept. 180. Offices of Dept. 179 are located in Bldg. 4, Plant 1, at Col. AB-11.

Bloodmobile Visit Set For March 24

Engineering and experimental people at Convair San Diego may sign up now for the March 24 bloodmobile visit to Plant 1.

Donors will be drawn from Bldgs. 5 and 51 for this month's blood collection. Cards went to supervision the first of this week, said Ken Wulfemeyer, SD employee services.

Sets of Color Photos Accompany Awards

Color photograph sets of Convair planes and missiles continue to be awarded each week at Convair SD to submitters of the best Employee Suggestions.

The photograph sets are given in addition to regular cash awards. Selection is made on the basis of the ES's originality, ingenuity, completeness and practicability. In addition, the best ES during a one-month period is given an additional "bonus," either a model F-102 ash tray or F-106 desk set.

Winners during the latter part of January and February include: Mary Hansen (Dept. 216), S. T. Avent (Dept. 288), J. F. Bohney (Dept. 321 Palmdale), A. V. Helgeson (Dept. 321 Palmdale), Alejandro Duplat (Dept. 129), A. G. Utter (Dept. 129), Charles F. Foster (Dept. 324 Palmdale), L. E. Franks (Dept. 249), and Tomas Castro (Dept. 31).

Speedy Spares System Applied to 340s, 440s

(Continued from Page 1)
being sent to airlines now flying Convair 240s, 340s and 440s in some quantity. Airlines already supplied with the "decks" are United, KLM, Hawaiian, Sabena and Delta.

All constant data is entered on the card so that airlines need only duplicate the card, add variable data (number of parts desired, date needed, etc.), and forward the card order to Convair.

When the pre-punched order cards are received at service parts (Midway and Fordham Sts.) they are ready to be audited and started through the transceiver system. The IBM network not only produces duplicates of the cards (at shipping department in Rose Canyon, accounting and data processing in Bldg. 8, Plant 1) but, in addition, permits the order to be promptly registered on the sales record by means of a facsimile posting machine.

The transceiver system has already made its "maiden flight" with colors flying. Delta Air Lines has received some 1,500 spares items processed via the new system, according to Wolfe.

They were termed "without question the finest to have been received from an aircraft manufacturer," by William Miller, superintendent of stores for Delta Air Lines.

By the end of June, Delta will have received over 5,000 jet 880 spares items.

At the same time, service parts is processing 2,376 planning sheets for 880 support items received from Trans World Airlines. The sheets are being converted to order tab cards which will be used to start the final orders through the transceiver system, as well as acknowledge receipt of the order to TWA.

Present plans call for delivery of the TWA spares items, currently on order, during March, May and July.

PRICES REDUCED FOR WATER SKIS

Water skis, ranging in discount price from one-half to one-third off retail prices, can now be obtained by placing orders with Convair SD employee services, Plant 1.

All types of skis, custom formica type single or banana slalom, custom contour outboards or inboards, custom jumpers, custom trick or turnarounds, and children's skis, manufactured by the Mark V Water Ski Company of Los Angeles, can be ordered at special discount rates.

Also available is a do-it-yourself water ski kit priced at $27.05. The kit includes two unfinished skis plus a complete set of accessories to finish the skis.

Models of finished skis and the do-it-yourself kit can be seen at employee services, Plant 1. A $10 deposit is required before orders will be placed for the do-it-yourself kit. Down payment required for all finished models is $20.

Yuma Destination For Car Clubbers

Sports Car Club members at Convair SD will combine some competitive driving and social events during the weekend of March 26-27 when they stage their "Spring Desert Tour."

Members will drive to Yuma, Ariz., stay overnight at the Stardust Hotel, with short trips planned to places of interest in the area.

Also to be held in conjunction with the event, planned by the club's March activities committee, is a dinner dance at the Yuma Country Club. Forecast for the event, according to the committee, is plenty of "sun and fun."

25 CAMPERS JOIN TRAVELING GROUP

An organizational meeting for Convair folk owning pickup trucks equipped with campsters or camping trailers was attended by 25 families, Pete Beyrer, commissioner, reports.

The group decided to meet the third Thursday of the month at 7:30 p.m. in the CRA Clubhouse, Gillespie Field. Accordingly, the first regular club meeting will be held tomorrow (March 17).

Any interested Convair folk are invited to attend tomorrow's meeting. Dates will be firmed for a trip into the desert. A color travelogue will be shown and coffee and doughnuts served.

Jeepsters to Trek April 2-3 Weekend

Convair SD Jeep Clubbers will take part in a jeep cavalcade April 2-3, leaving Hemet Saturday morning at 8 and going through the Coyote Mountains and Collins Valley to Borrego.

Art Thomas, club spokesman, said the group will camp overnight at Carrizo Wash, leave from the junction of the wash and railroad bridge at 8:30 and strike out cross-country through the Badlands to Hwy. 80.

AF Confers With Convair, Douglas, Hughes On Latest F-106A Weapons Information

Representatives from Douglas and Hughes Aircraft Companies and the Air Force met at Convair San Diego late last month to compile latest technical information on F-106A weapons.

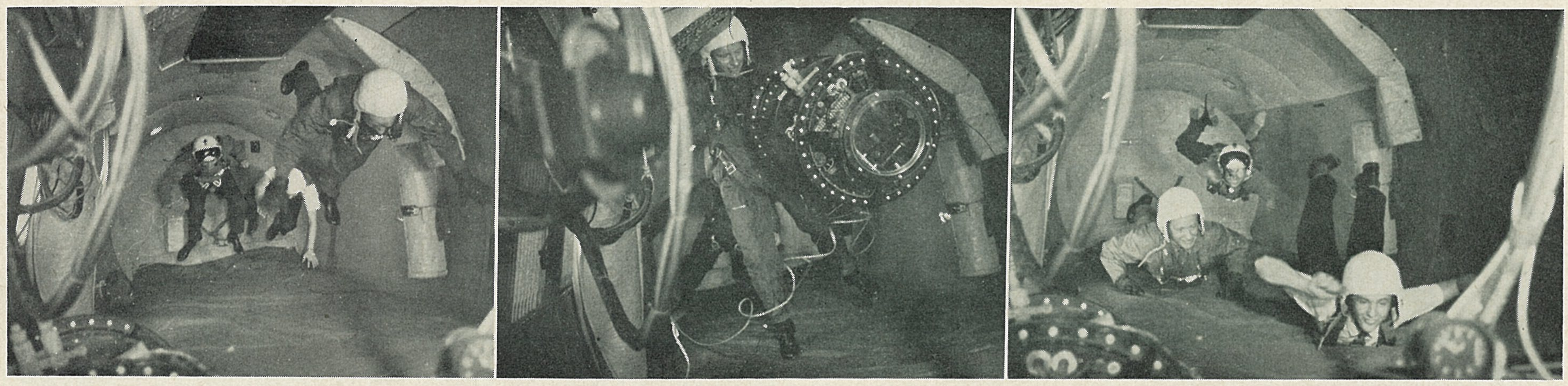
Conferring for the first time since the Convair-built F-106 jet interceptor became operational, delegates from the companies responsible for F-106 armament met with AF and Convair SD personnel to consider revision of the F-106A special weapon delivery manual. Douglas Aircraft builds the MB-1 air-to-air rocket and Hughes, the Falcon missile, which comprise the weapons system of the fighter-interceptor.

Glenn W. Green of AF Special Weapon Center, Kirtland AFB, N. M., chairmanned the two-day meeting coordinated by SD service publications.

Revised manuals of procedures and equipment involved in operational firing of F-106 weapons, compiled under direction of service publication department, will be issued by the first of May, said H. R. Kennedy, SD chief of service publications.



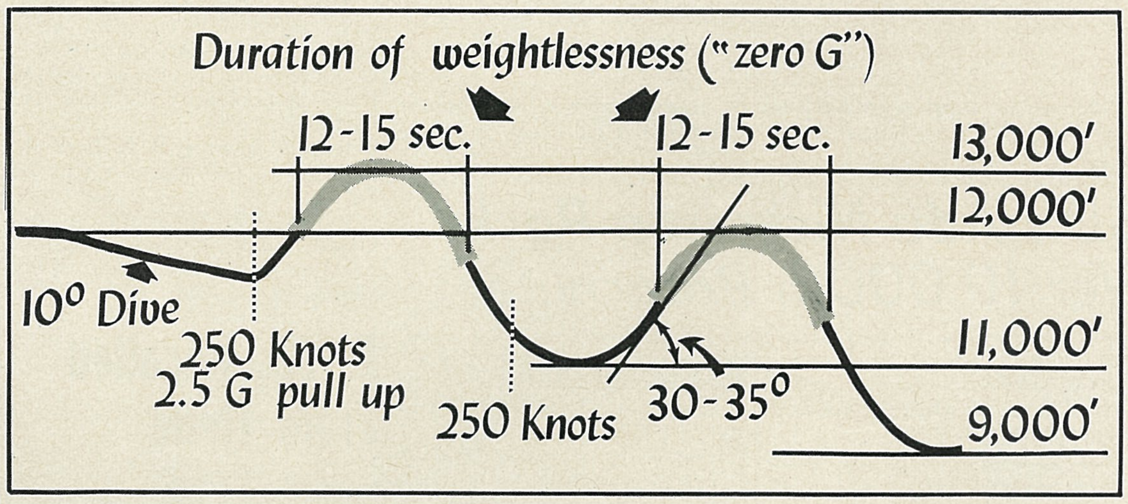
F-106 CONFERENCE—Air Force, Douglas and Hughes Aircraft Co. men met recently at Convair SD to bring F-106 manuals up to date. Standing is G. W. Green of AFSWC, Kirtland AFB, N.M., conference chairman, with Charles McCandliss, SD engineering writer (left), and Jack Meacham, manual editor (right).



FLYING HIGH—Astronautics representatives went along for "weightlessness" tests recently, using Air Force C-131B (military version of Convair 340). Clay Perkins and Leif Hansen are shown "floating" in cabin with M/Sgt. Bill Thompson of Air Force. Center, Thompson wrestles equipment.—Photos by Eric Hogfors.



ROLLER COASTER—At top is Air Force C-131B (military version of Convair 340) and below, aft compartment is prepared for "weightlessness" flight from Lindbergh Field, San Diego. Astro's Charles Burton is at left.



Here's Way to Take Off Some Weight--All of It!

Eighteen from Astronautics, including one woman, experienced the "weightlessness" of outer space recently.

They flew in a specially instrumented C-131B (a military version of the Convair 340) operated by an Air Force crew from Wright Air Development Division. Six flights were made from San Diego's Lindbergh Field, most of them lasting about three hours.

By means of power dives and abrupt pull-ups, everyone on board was subjected to some 12 to 15 seconds of actual weightlessness during which they floated in midair, if not strapped down.

"I felt as if I were upside down, and I couldn't keep from laughing at the others, as well as at myself," R. B. Wilson of Astro's human engineering recalled.

The tests were of value in connection with Project Mercury, which sometime in 1961 is expected to put a man in space, using an Atlas series D missile. Also, data was obtained for Centaur vehicle development.

This was the first time the special C-131B had operated from San Diego, though it has been flying weightlessness tests extensively for some period of time. No special stressing was required for the airplane, but certain engine refinements were necessary.

The aircraft is divided into three parts. Up front is the pilot's compartment. Behind is a section packed with electronic gear. In the aft section of the fuselage is the test area. It is padded throughout. Items under test are normally chained, although allowed to float about.

Astro's motion picture section filmed the tests. Jim Leath, Charles De Mund and Bob Montague operated cameras anchored to the floor.

Leath, a former acrobatic pilot, described the floating sensation as like an outside airplane spin. Joan Sherley, thermodynamic engineer and lone woman to take part, said it was "like nothing I have ever encountered before."

Each participant had to pass a special physical before taking part.

Eric Hogfors who directed most of the tests, William Prince and Leif Hansen who took part were old hands at zero gravity. They previously had made other test flights in the plane over Dayton, Ohio.

SD Glider Builder Cited as Pioneer

Bjorn "Andy" Andreasson (SD Dept. 6) is termed "Sweden's Greatest Aeronautical Export" in a story appearing in the April issue of the national magazine, "American Modeler." Andreasson (**Convairiety**, Jan. 20, 1960) is cited for his efforts in pioneering innovations in the glider and private airplane field.

Models Used to Wring Out Design Of High Speed Amphibious Craft

Tests concluded recently in Convair San Diego's tow basin may decide final design of high-speed amphibious craft.

Under a feasibility study contract, Convair SD hydrodynamics engineers have been testing and evaluating three hull designs for a proposed land-water craft. The craft itself would be used for loading and unloading cargo from offshore vessels.

"Models, five feet long and painted bright yellow for photographic contrast, were built from customer designs for testing purposes," explained C. E. Jones Jr., senior hydrodynamics engineer in charge of the program for Convair SD.

"Then the miniature boats were fully equipped with gasoline engines similar to the kind used in lawnmowers or Go-Karts, standard radio control equipment, rudders, rudder controls, signal indicators. Convair furnished instrumentation and cameras used to record craft reactions during various tests."

In Convair SD's high-speed tow basin, only commercial one of its type in the country, hulls of the boats were judged by the way they cut through the water, how high the water came up on or over the sides, and how well they could take "rough seas." Waves as high as three feet were simulated to sweep the low hulls.

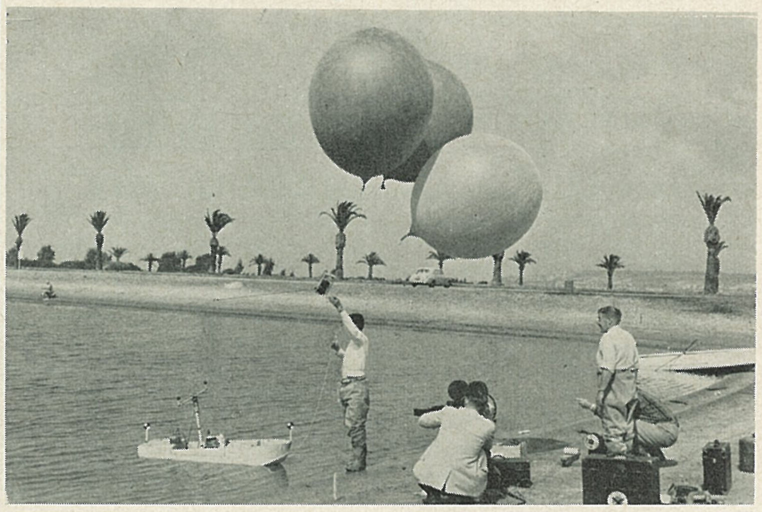
"Convair San Diego's tow basin is one of the very few installations that has such a high-speed capability," stressed Jones. "Some models can be driven as fast as 100 feet per second with the tow basin's hydraulic drive system."

Second half of the tests were conducted in the Model Yacht Basin in Mission Bay where the small boats showed their adeptness in turning circles. Radio-controlled, they were guided from shore through turning maneuvers. The angle of heel and yaw was minutely recorded by cameras hanging overhead, and others stationed in front and at the side.

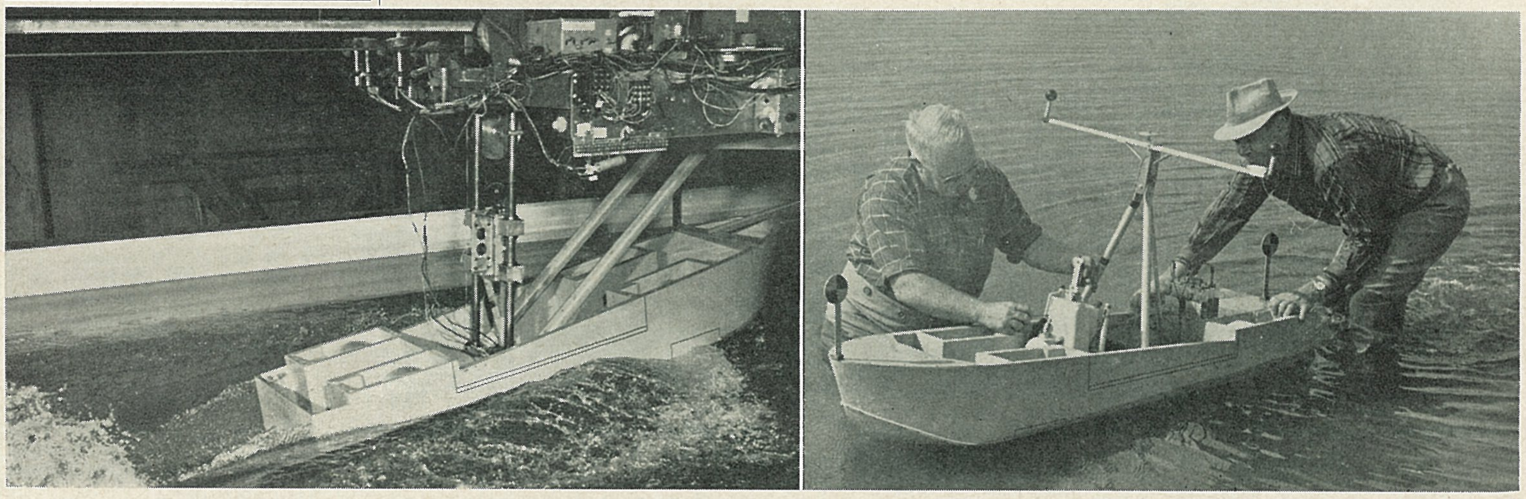
The small aerial camera used for overhead shots was suspended from meteorological balloons filled with helium. "After experimenting with different sizes and numbers of balloons to hold up the weight of the four-pound camera, we finally settled on one large balloon approximately 10 feet in diameter," Jones said. "And, although hydrogen will support more weight than helium, we had a supply of helium on hand—the unusable residue left in tanks at the supersonic wind tunnel."

Negatives from the 16 mm. aerial camera and 35 mm. motion picture cameras on shore furnished the visual information used by hydrodynamic engineers for their final evaluation of the three hull designs. "One of the hulls definitely proved to be satisfactory in all respects," summarized Jones.

Convair SD's tow basin, a 315x12-ft. tank located at the seaplane ramp, will soon be equipped for testing of low-speed, as well as high-speed, craft. A small drive unit with low-speed capability is now being installed.



BALLOON "WATCH" — Convair SD hydrodynamics engineers attach small aerial camera to meterological balloons for overhead shots of model boat maneuvers in Mission Bay. From left are Stanley Uyeda, hydrodynamics design engineer; Sid Griffin of motion picture section; Alan Conolly, hydrodynamics design engineer; C. E. Jones Jr., in charge of program. R. R. Koser of SD motion picture section operates third camera from opposite shore.



SEAWORTHY—Five-foot model of proposed amphibious craft goes through paces in Convair SD's high-speed tow basin (at left) and in Model Yacht Basin of Mission Bay (right) during hull evaluation. Sedgewick Wood, hydrodynamics test engineer, and C. E. Jones Jr., senior hydrodynamics engineer, prepare to launch realistic miniature.



"Tomorrow starts my third year as your supervisor, Mrs. Jordan . . . Wouldn't it be nicer if you didn't speak of it as 'The third round'?"

SD's Ada Nickerson Packs Her 10,000th Parachute

Convair San Diego's only parachute rigger, Ada H. Nickerson, marked a milestone in her career early this month when she packed her 10,000th chute.

She estimates that, of that number, 8,500 of the chutes have been packed during her nearly 17 years at Convair San Diego. She has been packing parachutes since 1938 when she learned the trade and earned her CAA master rigger's license in Kansas City, Kan.

She joined Convair SD Aug. 23, 1943, after moving to the West Coast. Since then she has presided over the parachute room of SD production flight department, located in Bldg. 4 at Plant 1.

She recalls that her first working location was in a hangar-type building on the site of Bldg. 51. The parachute room was moved the next year, in early 1944, to a building south of the airport, near the present location of the Standard Oil Service Station. In the fall of 1945 it was moved again, this time into Bldg. 4 where it has been ever since, except for a couple of years during the B-36 program when the flight department was lodged in the IAS auditorium off Harbor Drive.

Mrs. Nickerson has been packing chutes used by crews of every Convair SD plane since the B-24, and has the sole responsibility of keeping the 120 company-owned chutes and F-106 drag chutes in top condition. Those of test crews at off-site bases, Palmdale, Edwards, and Holloman, are sent back to Convair SD plant for their periodic checks.

Each parachute, with its more than 70 yards of nylon and 28 lines, must be aired, checked, and repacked every two months. Timing herself closely, Mrs. Nickerson says that it takes her about half an hour to pack a chute for use in a propeller-type plane. Packing the high-speed, high-altitude chutes used by crews of jet craft takes almost twice as long.

Never has a parachute packed by Mrs. Nickerson failed to open, as the 18 pilots who have "hit the silk" with them, can testify. Fifteen Convair crewmen, whose lives were saved by her chutes, honored Mrs. Nickerson at a special dinner in 1953.

In the more than 20 years that Mrs. Nickerson has been handling parachutes, she has seen very little actual change in their construction. "Of course, all parachutes now are made of nylon instead of silk," she explained. "And practically all of them are back chutes instead of the former seat chutes, but, otherwise, those used today are much the same as they were 25 years ago." Greatest differences in modern chutes are the automatic releases and oxygen bottles incorporated in parachutes designed for jet planes.

Pleased as she is at the many parachutes that have passed through her hands over the years, Mrs. Nickerson is especially proud of the fact that she is the only woman member of S.A.F.E., a national organization of survival and flight equipment specialists.



10,000 CHUTES—R. C. Schaefer, Convair SD flight engineer, watches as Ada H. Nickerson packs his parachute as her 10,000th in 22 years of rigging.

J. L. Carr Elected Toastmaster Prexy

J. L. Carr of Astro Dept. 322-5 will be installed new president of Convair Toastmasters Club #457 at ceremonies scheduled for April 2.

Other officers to be seated are Tillman Schafer, administrative vice president; Ken Samples, educational vice president; Earl Patrick, treasurer; Duane Johnson, secretary; and Don O'Neill, sergeant at arms. All are Dept. 6 men at Convair SD.

Ladies will be invited to the installation dinner-dance affair. Members are asked to make reservations with Earl Erickson, ext. 1032, SD Plant 1.

Convair Man New Soaring Champion

Dave McNay of Convair Pomona rang up 137.8 points to win the Pacific Coast Midwinter Soaring Championship Feb. 27-28 at Torrey Pines Gliderport near San Diego.

Forty other Convair men either flew in the meet or handled ground support tasks.

McNay, as top pilot, was awarded the John J. Montgomery Memorial trophy. Thirty pilots entered the meet, competing in duration, spot landing, bomb drop, distance, and dual distance events.

Two Convair SD men, John Williams and DeVaughn North, were ranked 14th and 18th, respectively, in the final standings.

More AF Units Getting F-106s

Two new F-106 Air Force squadrons are in the process of being activated, one in Michigan and one in North Dakota.

Minot AFB, N.D., received its first F-106, Convair-built fighter-interceptor, last month for training purposes. The 5th Fighter-Interceptor Squadron there, part of the 32nd Fighter Group, is now getting F-106s on schedule for a normal squadron complement.

Convair SD field service representatives at the Minot base are D. W. St. Pierre, F. P. Cuneo, and W. F. Eddy.

First of two F-106 squadrons to be assigned to Selfridge AFB, Mt. Clemens, Mich., the 94th FIS, is now being activated. Second F-106 squadron at the base will be the 71st FIS.

Dean Marks and R. R. Bass are assigned to Selfridge for Convair SD support.

F-106s will be going to McChord AFB, Tacoma, Wash., within a few weeks to replace the F-102s of the 318th FIS.

F-102s Recalled From Thule

The F-102-equipped squadron stationed at Thule, Greenland, is soon to be de-activated, according to a recent Department of Defense announcement.

The squadron, 327th FIS, has been based in Greenland since June, 1958, when it was transferred from George AFB, Calif. Ivan H. Bullard, Convair SD field service representative, has been with the 327th since July, 1959. He replaced Cliff Harrell who had gone to Thule at the time the 327th was sent there the year before.

Bullard writes that 90 mph winds during January did considerable damage at the base. Crews had to work around the clock removing snowdrifts from the runways, ramp, and the heavy drifts which blocked the hangar doors. Bullard will return to San Diego within the next few weeks.

Estimating Society Chooses April 5 For Workshop Meeting

Five Convair SD and Astro men will be moderators at a workshop meeting of the Industrial Estimating Society of San Diego slated April 5 in the Lafayette Hotel starting at 6 p.m.

They are T. J. Sullivan, SD assistant division manager, customer service, contracts and material; Roy Ashe, Convair director of estimating; W. W. Whittier, SD spares estimating supervisor; W. L. Young, Astro manager of operations; and G. M. Robertson, Astro assistant chief engineer-administration.

Membership in the estimating society now totals 116, including representatives of all San Diego aircraft firms as well as the Air Force. Convair SD and Astro persons interested in joining can obtain more information by contacting either J. A. May, ext. 1451, Plant 1; or A. F. Kreiger, ext. 3341, Astro.

Main speaker at the March meeting was Paul R. McDonald of Procurement Associates who spoke on the "Art of Negotiating."

SD Service Engineer Tells Club About 880

R. H. Geary, Convair SD service engineer in the transport program, spoke on the Convair 880 at a recent meeting of the Kensington-Talmadge Men's Club.

He explained different facets of the 880's design as they will affect passengers' comfort and safety. A film showing flight testing of the 880 and colored slides of 880 interiors interested the more than 100 members and guests.

Frank Freeman of SD-Dept. 6 heads the group as president.

A Big Family

Barks, Meows, Chirps, Cackles, Piteous Looks Spell Dinner

When Ada Hamm of Convair SD's engineering library prepares dinner it's no small chore. She has more than 250 "mouths" to feed.

Quite an assortment gathers around the table. All are hungry. They chirp, sing, cackle, bark, meow, and even "beg." The following are members of the "family": seven guinea pigs; ten chickens; 12 canaries; one cat; three dogs; two goldfish; 14 parakeets; two Java Rice birds; 200 tropical fish; 14 finches; two rabbits; and Horace.

Horace is a turtle. When hungry, he sticks his neck out of his shell as far as possible, and directs a piteous look in Ada's direction.

A large family?

Not really, Ada explains. A year ago it numbered closer to 300. That is until some children opened the cages in the aviary.

Harmony, however, reigns in the family itself. The guinea pigs live on the lower floor of the aviary. The rabbits stare out of their cages into the chicken yard. The cat and dogs patrol the area.

According to Ada, only the chickens are earning their keep. They are auracandes and lay bluish-green eggs. Ada claims they taste better for breakfast than the common, white variety.

As things stand now Ada doesn't expect to purchase any newcomers for the family. In fact, baby guinea pigs are expected soon.

"We're doing fine," Ada asserts. "I don't think that we'll have to 'adopt' any more into the family circle."



FAMILY AFFAIR — Ada Hamm of Convair SD's engineering library tucks chicken and guinea pig under arm, two of bewildering assortment of pets she cares for at San Diego home.

Convair Men to Present Papers At National Aeronautic Meet

Five men from Convair FW and four from Convair SD will take part in panel discussions or present papers at the National Aeronautic Meeting of the Society of Automotive Engineers April 4-8 at the Hotel Commodore in New York.

Four of the FW contingent will take part in a panel discussion involving the B-58 reliability program. M. L. Hicks, assistant FW operating division manager, is panel leader and J. L. Coburn, FW reliability project administrator, is panel secretary. Participating in the discussion will be N. H. Simpson, FW manager of reliability, and R. D. Chase, FW senior aerophysics group engineer.

E. W. Feddersen, FW chief of manufacturing research and development, will present a paper on "Production Forming of Materials by High Energy Rate."

Convair SD participants include W. H. Bond and R. F. Mawhinney Jr. (both Dept. 6) who will present a classified paper on the "Design Aspects of an Air Breathing Booster."

C. L. Blake, Convair staff engineer, will discuss "A New Design Approach for Supersonic Transport." A paper to be given by J. F. Brady Jr. of Convair SD's advanced project office is entitled "Potential of Nuclear-Powered Aircraft for Commercial Cargo."

Esenwein Speaker At Joint Meeting

August C. Esenwein, Convair executive vice president, will discuss "Engineering With a Conscience" as main speaker at a joint dinner meeting of three engineering societies tomorrow (March 17) in the Lafayette Hotel Gold Room in San Diego.

Meeting together will be San Diego chapters of the American Rocket Society, American Society of Mechanical Engineers, and California Society of Professional Engineers. A 6 p.m. social hour will be followed by dinner at 7 and meeting at 8.

At Astro, tickets can be obtained by contacting Dan Heald, ext. 2234. Handling tickets at Convair SD are Jack Shue, ext. 1356, and Pieter Snyders, ext. 2311, both Plant 1.

Con-Trib Votes Bus For Zoo

San Diego Zoo will have a new 72-passenger bus, thanks to a $13,300 contribution from Convair San Diego Employees' Con-Trib-Club.

F. H. McLaughlin, Model 8 superintendent at Plant 2 and Con-Trib-Club Committee member, presented a check for half of the amount to Dr. Charles Schroeder, zoo director, early this month. The balance will be given in two equal installments.

The bus will be used to transport school children from their schools to the zoo for tours and educational activities.

Other donations approved by Con-Trib-Club at the last committee meeting included $200 to Lakota Tarca Oyanke and $200 to Diabetes Association of Southern California, both organizations at Antelope Valley; $3,000 to San Diego YMCA; $500 to Theatre and Arts Foundation of San Diego County; and $3,500 for homemaker service activities of SD Family Service Association.

Fencing Workouts Scheduled Fridays

Fencing workouts and classes, sponsored jointly by CRAs at SD and Astro, will be held every Friday evening starting March 18 at the downtown YMCA, 8th and C St.

Classes and workouts will start at 7 p.m., open to SD and Astro folk, both experienced and novice. A 50c service fee will be charged each evening to cover cost of lockers, instruction and showers. CRA will furnish fencing equipment for beginners.

Workouts will be conducted under direction of SD's Ray McNamara and Astro's Mike Hurley. The schedule of regular Friday night sessions was formed when some 25 prospective members attended an organizational meeting early this month.

Additional fencing team information can be obtained by contacting either Jim Conklin, ext. 1111, Astro; or Pete Beyrer, ext. 1245, SD Plant 1.

NEWS FROM OTHER DYNAMICS DIVISIONS

General Dynamics Corporation, created in April, 1952, as successor to Electric Boat Company, is composed of seven divisions and a Canadian subsidiary, Canadair Limited, of Montreal, airframe builders. The divisions are:

Convair, head offices at San Diego, Calif., aircraft, missiles, and space systems.

Electric Boat of Groton, Conn., submarines.

Stromberg-Carlson, of Rochester, N. Y., telecommunications, electronic equipment.

Liquid Carbonic of Chicago, Ill., carbon dioxide producer, industrial and medical gases.

General Atomic of San Diego, Calif., nuclear research, development, production.

Electro Dynamic of Bayonne, N. J., electric motors, generators.

Material Service Division, Chicago, Ill., building materials, concrete products and coal.

* * *

Battle Situation Reproduced On TV Tube at Command Post

SAN DIEGO—A lightning-fast new tactical communications system which instantly displays battle area reports on the face of a TV-type tube at rear line command posts, has been developed by Stromberg-Carlson here, in cooperation with the U.S. Marine Corps.

This revolutionary concept for high-speed field intelligence gathering and display is known as BASIC, for Battle Area Surveillance and Integrated Communications.

Fully-operational units will be field tested by the Marine Corps Equipment Board, Quantico, Va., in June.

BASIC equipment consists of small, hand-held push-button message generators, a portable data processing unit, an electric typewriter readout and a direct view display unit.

Message generators are used by forward observers to swiftly transmit intelligence reports to a division command post. The message is set up by the observer through a series of rotary switches, and sent in a single short burst over his standard field communications equipment.

The message is received, processed and displayed within three seconds of transmission.

Target location symbols are geographically positioned on a standard military map, optically registered to the TV-type tube face. Key personnel thus get an instant comprehensive picture of the entire tactical situation.

As intelligence on movements in the combat area is received by the command post, it is also automatically presented on typewritten cards as a permanent record.

Information on up to 50 targets may be displayed on the tactical map. Because of its high transmission rate, the system adds security to field communication.

The small size of the BASIC message generators permits forward observers to be on foot, in jeeps, tanks, helicopters, or aircraft—anywhere the Marine can operate normal field radio or telephone equipment.



UP FRONT—Marine forward observers demonstrate message generator to report "enemy" tank. By pressing transmission button, entire message is sent in short burst and three seconds later it shows up on tactical map at rear line command post.

Lester Crown and Frank Nugent Named General Dynamics VPs

NEW YORK — Directors of General Dynamics have elected two officers of the Material Service Division of Chicago, Ill., as vice presidents of General Dynamics Corporation.

Lester Crown, a vice president of Material Service and president of the subsidiary Marblehead Lime Company, and Frank Nugent, president of another subsidiary, the Freeman Coal Mining Corporation, have been named to fill the new corporate posts. Both retain their present positions with Material Service which was merged into General Dynamics in January.

Lester Crown is a graduate of the Northwestern University Institute of Technology and the Harvard Graduate School of Business Administration. In 1945 he was employed as an assistant metallurgist at the Andrews Steel Company in Newport, Ky. From 1949 to 1950 he was a research chemist at the Medusa Portland Cement Company of Cleveland. He joined Material Service in 1950 as an engineer.

Frank Nugent, a native of Evanston, Ill., started his business career with the Chicago, Rock Island and Pacific Railroad Company. He joined the Freeman Coal Mining Corporation more than 30 years ago. He became vice president in charge of sales in 1929, executive vice president in 1946 and president in 1957. Under his leadership Freeman Coal has risen to the position of seventh largest commercial coal producing company in the United States, with an output of approximately seven million tons per year from mines in central and southern Illinois districts.

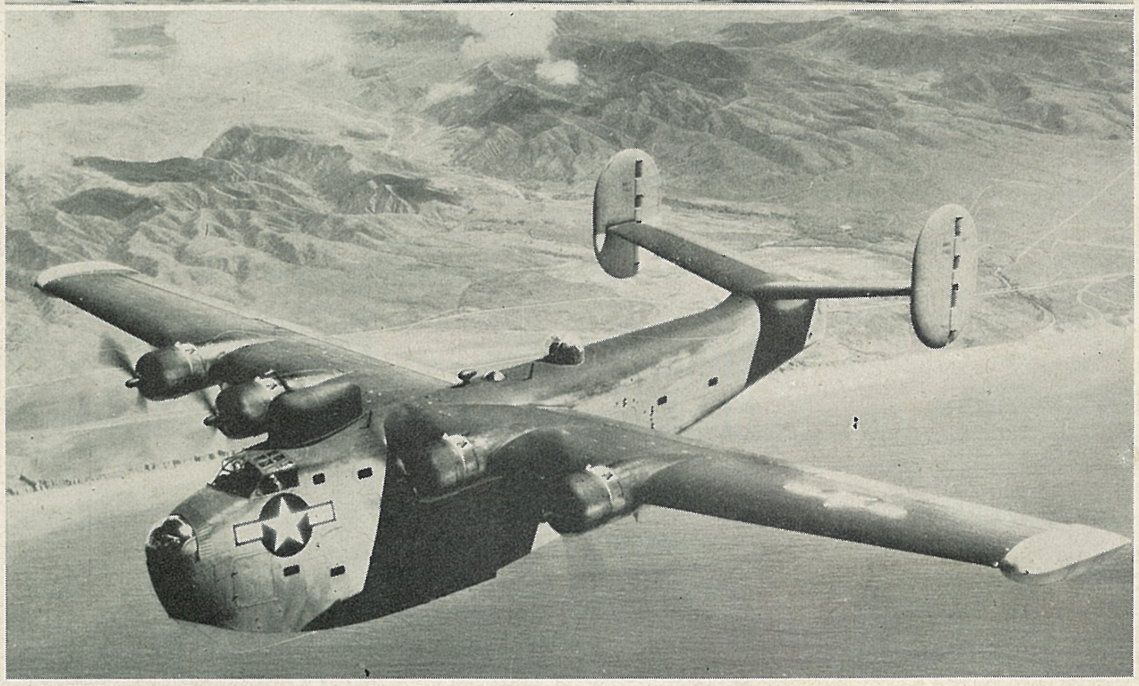


Frank Nugent



Lester Crown





BIG BOAT—At top is XPB2Y-1 (later called Coronado) ready for launching at Consolidated seaplane ramp in December, 1937. Prototype had single-finned tail, later modified because of unsatisfactory directional stability. Final solution was broad twin tail. In lower photo is PB2Y-5, last of patrol-bomber series. Radome ahead of wing is distinguishing characteristic. Many became long-range Navy transports.

XPB2Y, Called Coronado, Result of Navy Contest

(This is No. 30 in Convairiety's continuing history of Convair.)

During early PBY production, a new flying boat was coming along. This was the XPB2Y-1, winner of a Navy design competition in late 1935 for a four-engine patrol bomber. It developed as a greatly enlarged and refined version of the PBY, a clean cantilever monoplane from which the last external bracing had disappeared. Its gross weight was 66,000 pounds, more than double the PBY. It could carry six tons of bombs, three times the load of the smaller sister.

The XPB2Y-1 made her first flight in December of 1937. Nine months of testing and modification of hull and tail assembly were required before the big ship was ready to turn over to the Navy, on Aug. 24, 1938. After the British started wartime procurement of the boat they called it Coronado, a name that came into general usage. They had already given the PBY its familiar name, Catalina.

The late 30s saw the great pioneer development of transoceanic airlines by Pan American, which started crossing the Atlantic in 1939. The flying boat still was queen of the seas. Not until the second World War would four-engine planes prove their dependability over long reaches of water.

Pan American stirred the imagination of designers in 1937 by inviting manufacturers to submit plans for a flying boat that could carry 100 passengers and a crew of 16 a distance of 5,000 miles nonstop. Such a boat was beyond the capabilities of power plants then available. In 1938, however, Consolidated began construction of a company-venture flying boat, the Model 31, that was planned as a commercial seaplane capable of carrying 52 passengers. It employed the unique Davis wing and Fowler flap, and was the first aircraft to use the new Wright 3350 Duplex engine and a 16-foot propeller.

Toward the end of 1938 the PBY contracts with the Navy were largely fulfilled and Consolidated's payroll had dwindled from the 1937 peak of nearly 4,000 to some 1,200 workers. In December, Chief Engineer I. M. Laddon and Charles A. Van Dusen, a Consolidated vice president, flew to Seattle to confer with Boeing Airplane Co. officials on the possibility of sharing a Boeing contract for B-17 bombers. The conferees agreed there was not enough work to divide.

But the Munich conference had taken place in September, and the picture was about to change for the aviation industry. In December a large order from France kept the Pratt and Whitney engine plant at East Hartford from shutting down. In January President Roosevelt urged appropriation of $300 million for Army aircraft of increased range, speed and capacity. In April Congress authorized purchase of 3,251 military planes. The great procurement program that was to reach a climax in 1943-44 was under way.



PANEL DISCUSSION—Members of Weapon Systems Support committee from General Dynamics Corporation divisions at opening session of Feb. 23-24 conference at Convair San Diego are (from left): W. R. Swaim, Convair Fort Worth; H. N. Bowes, Electric Boat; F. L. Cook, Convair SD; N. G. Hartwell, FW; W. E. Barnes, Astronautics; J. J. Wheeler, SD, chairman of meeting; C. S. Brandt, SD; D. R. Rutland and R. W. Wollenweber, Convair Pomona; R. D. Braggins, Electric Boat; N. E. Armstrong, SD; R. W. Geis, FW.

Security Risks We Can Do Without



"CONFIDENTIAL CONRAD"

"Now I wouldn't tell this to anybody but a guy like you who can keep his mouth shut . . ."

Scholarships Field Reduced

Half of 80 applicants for this year's Convair SD Management Club scholarships have survived the first-round elimination, announced H. E. Mayer, committee chairman.

The second elimination hurdle will be a college-type aptitude test this coming Saturday morning (March 19) at Plant 2. Applicants also will be required to write a brief essay on a selected subject. Dr. Herman Roemmich of San Diego State College is conducting the tests.

Applicants still in the running have been notified to be at the Plant 2 overpass promptly at 8:45 a.m., said Mayer. The field will be cut to six, three girls and three boys, from which the final winners will be chosen.

Convair Club Hosts Speech Competition

Delta Toastmistress Club hosted the West Area speech contest last week (March 9) in the Pool View Room, El Cortez Hotel.

Virginia Reynolds (Astro Dept. 325-2), Delta contestant, placed third. Other Delta speech contestants were Donna Kindig and Mary Shelley.

Radio Club Slates New Code Classes For SD Beginners

Registrations for a new class in radio code and theory, sponsored by the Convair SD Radio Club, will be accepted at meetings tomorrow (March 17) and March 31 at 7:30 p.m. in the Harbor Drive headquarters.

The class is open to all Convair SD employees. In addition to code and theory, requirements for FCC amateur licenses are also taught. Meeting dates and times, convenient for the majority of students, will be arranged, according to J. B. Baker, commissioner.

Classes will most likely be held twice a week, last for about two hours.

Those unable to register on either March 17 or 31 at the club's headquarters can make reservations by contacting employee services, ext. 1245, Plant 1.

Baker reminded Radio Club members to reserve the evening of Thursday (April 28) for the group's annual potluck supper and party. Place and time for the event are still to be determined.

Log Book Entries

Service Emblems

SAN DIEGO

Service emblems due during the period March 1 through March 15:

Thirty-year: Dept. 31, Otto Peterhansel.

Twenty-year: Dept. 7, J. E. Lawton; Dept. 15, T. G. Jones; Dept. 31, W. O. Toomire, C. R. Yokley; Dept. 116, D. W. Kennedy; Dept. 139, V. C. Breit; Dept. 192, T. F. Allen; Dept. 200, C. F. Blair; Dept. 280, R. C. Maving Sr.; Dept. 400, W. H. Rimmer, D. H. Sandin, A. M. Van Horne; Dept. 401, R. H. Hunter.

Fifteen-year: Dept. 3-7, J. B. Baker; Dept. 6-31, E. K. Hamilton; Dept. 25, Oscar Davis; Dept. 31, C. B. Burkhardt; Dept. 233, M. M. Longino Jr.; Dept. 288, R. E. Davis; Dept. 292, J. A. Salazer; Dept. 400, A. W. Hicks.

Ten-year: Dept. 3-5, Olive G. McAndrews; Dept. 6, Charity S. Earnest, C. B. Wells, E. E. Whigham; Dept. 34, D. M. Constant; Dept. 44, R. R. Deacon Jr.

Dept. 102, H. H. Ferguson; Dept. 120, Laura B. Brownlee; Dept. 148, R. R. Adams; Dept. 197, J. W. Hayes; Dept. 201, J. S. Dennie, R. E. Ortegg; Dept. 206, M. B. Abbey; Dept. 215, I. V. Welty; Dept. 216, F. H. Feneci; Dept. 249, A. P. Montoya.

Retirements

SAN DIEGO

BICKEL—Leslie H., Dept. 401. Seniority date March 14, 1951, retirement effective March 5, 1960.

CASEY—Timothy P., Dept. 31. Seniority date Nov. 19, 1947, retirement effective Feb. 26, 1960.

CLARK—Cecil L., Dept. 120. Seniority date Sept. 5, 1950, retirement effective Feb. 26, 1960.

CZARNOWSKI—John B., Dept. 401. Seniority date Oct. 10, 1951, retirement effective Feb. 26, 1960.

GILLESPIE—Merrill H., Dept. 25. Seniority date Feb. 21, 1951, retirement effective Feb. 26, 1960.

GREEN—Lawrence, Dept. 25. Seniority date Jan. 26, 1953, retirement effective March 25, 1959.

GREGGS—Raymond F., Dept. 401. Seniority date Feb. 6, 1940, retirement effective Feb. 26, 1960.

KUTTICH—John, Dept. 401. Seniority date Nov. 9, 1953, retirement effective March 5, 1960.

McNIEL—Bessie J., Dept. 216. Seniority date Aug. 11, 1950, retirement effective March 4, 1960.

MOON—Clayton W., Dept. 145. Seniority date May 7, 1952, retirement effective March 3, 1960.

ROSKO—Tony, Dept. 218. Seniority date Aug. 24, 1950, retirement effective Feb. 26, 1960.

SUGG—Arthur F., Dept. 197. Seniority date Nov. 19, 1954, retirement effective Feb. 26, 1960.

Promotions

SAN DIEGO

Promotions to or within supervision effective Feb. 29.

Dept. 6-51, Engineering: To modification group engineer, A. W. Grindle.

Dept. 7-10, Electronics: To asst. research group engineer, R. R. Hively, R. M. McIntyre Jr.

Personals

My grateful appreciation to Convair friends, particularly those in Dept. 401-9, for the beautiful flowers and other expressions of sympathy at the death of my wife.

Arnold Ramsey, Dept. 401-9

* * *

I wish to thank all of our Convair San Diego friends, especially those in Dept. 135, for the many kindnesses, flowers, and assistance given us during the illness and death of our husband and father, Bernardo S. Vasquez.

Mrs. B. S. Vasquez and daughter, Alma

Births

SAN DIEGO

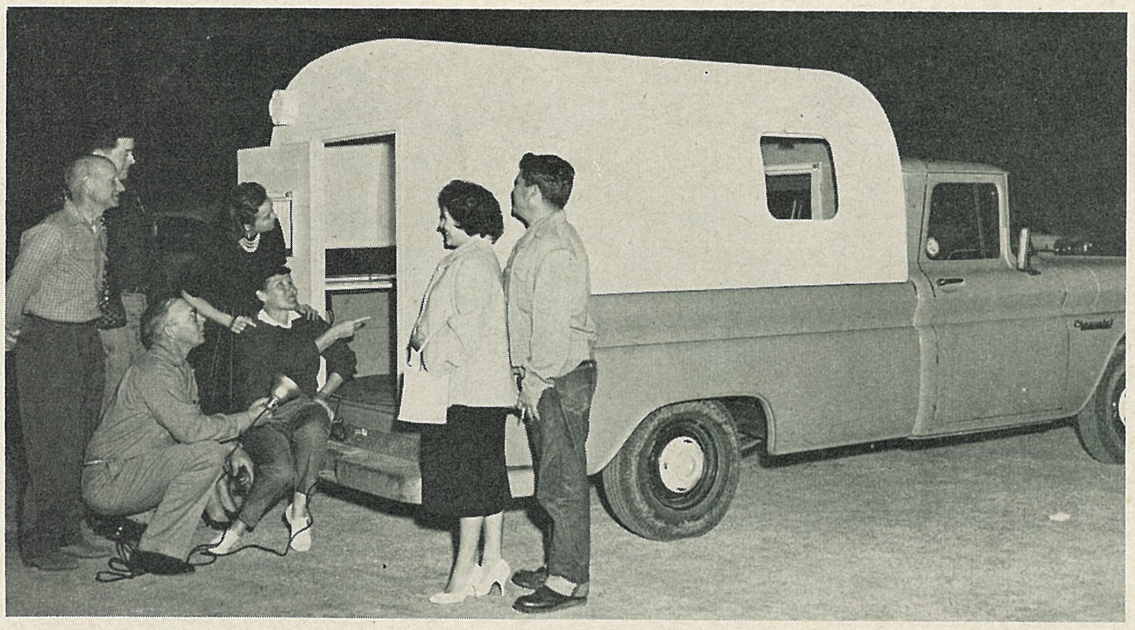
GALLOWAY—Son, Steven Michael, 10 lbs., 15 oz., born Feb. 22 to Mr. and Mrs. David J. Galloway, Dept. 31.

MUNSON—Son, Bradley Steven, 7 lbs., 13 oz., born Feb. 14 to Mr. and Mrs. D. L. Munson, Dept. 144.

Deaths

SAN DIEGO

ALPERT—Joseph G., Dept. 139. Died March 3. Survived by wife, Lillian; daughters, Beth and Rachelle; mother; brother.



FINISHED PRODUCT—R. W. Menzie, Fishing Club commissioner, and wife, Ruth (both crouching), display finished campster, similar to those that may be built under auspices of CRA Fishing Club. Interested inspectors are (standing from left): Jack Swank, George Anderson, Emma Lee Swank, Lupe and Blas Vargas.

Convair Loses Championship Hoop Playoff

Convair SD's basketball entry in the city Metro League last week ended the season in second place, dropping a playoff game for the championship 50-43.

Monroe Clark Insurance beat out the SD team for the championship, overcoming a Convair 23-18 halftime lead. The playoff game was necessitated when Monroe Clark lost its final league game to Local 89 and Convair won both of its last two contests, giving both teams the same won-lost records.

The same Convair entry, however, will have a chance for first-place laurels in the San Diego City Recreation Department League. Late last week they were tied with Rohr for the lead in the second round, both teams sporting 3-0 records.

Another Convair team, Tool Manufacturing, entered in the city Industrial A League, has already won the first half, but is out of running for the second-round lead. A playoff game between Tool Manufacturing and the second round winner will decide the league champions.

Shop league play went into its second round with favorites getting bounced with regularity. Dept. 6 Electrical, first round winners, lost both of its first two second-round games. A 53-50 loss to the 880 Jets tripped them first, then they were handed a 37-35 defeat by Service Parts.

Leading in the second round is Dept. 6 Physics who won their first two games, beating Dept. 280 Mockup, 44-22, and the 880 Jets, 48-37. In other games, Dept. 97 Tabulating was defeated by Service Parts, 48-16, then lost again, this time to Dept. 280 Mockup, 26-25.

SD Shop Volleyball Entries Now Open

All departments at Convair SD have until March 23 to enter teams in a volleyball league now forming, according to Pete Beyrer, commissioner.

League play will start about March 30, continue thereafter on a regular Wednesday evening schedule in the Muni Gym, Balboa Park. The schedule will be arranged so that it does not conflict with any meetings of the Convair SD Management Club, Beyrer added.

Individual trophies will go to each member of the winning team. Departments wishing to enter teams in the league should contact Beyrer at ext. 1245, Plant 1, before March 23.

ELECTION TOMORROW FOR ARCHERY CLUB

Archery Clubbers at Convair SD will elect new officers at their meeting tomorrow (March 17) which starts at 7:30 p.m. in the CRA Clubhouse, Pacific Hwy.

Build Campster for $50; Show of Interest Asked

Do-it-yourself activity may take another step forward under CRA sponsorship at Convair SD—this time in the shape of campsters, suitable for mounting either on pickup trucks or trailer beds.

Only if enough Convair SD persons display interest will the campster program be launched at CRA's boat building facility at Gillespie Field, according to J. K. Field, SD chief of employee services.

R. W. Menzie, Fishing Club commissioner, is in charge of organizing the program. He says it will probably cost about $50 to construct the basic campster (without interior accessories). Naturally, he added, the price increases if builders wish to make any design changes.

The campsters will be made of plywood, dressed over with masonite and covered with fiber glass. Many of the needed materials can be purchased from Convair SD's salvage yard. Special rates will be obtained from commercial suppliers of fiber glass and resin.

The campsters to be made measure 62 inches from floor to overhead, are 78 inches wide and eight feet long.

Any Convair persons wishing to participate in the program are asked to contact ext. 1245, Plant 1, during the next week. They should leave their name, dept. number, ext. and address. If enough requests are received each person will be contacted and asked to attend an organizational meeting at which a definite program will be set up.

Most likely participants will be organized in groups of four. Each will help his fellow crew members until four campsters are completed. Using the crew method, Menzie estimates it will take about four hours to finish one basic campster.

Depending on preference of individuals, CRA may attempt to have some "ready made" kits put together, with all parts cut to shape. These campsters, however, would cost considerably more.

SD Hoedowners Fill Schedule During April

Activity forecast for Convair SD's Hoedowners, CRA square dancing group, is jam-packed with events during the remainder of March and all of April, P. E. Liggett and Maury Scholz, co-commissioners, report.

Next party night will be Saturday (March 26) at 8 p.m. in the University Heights Community Center, 4044 Idaho St. The affair is billed as a "Goofers Dance" with special "goof-off" medals to be tossed around necks of steppers caught napping during dances.

On Saturday night (April 9) the Hoedowners have been invited to attend a dance sponsored by the Convair Antelope Valley Joshua Jumpers in Palmdale. The dance in the CRA Clubhouse will mark the second anniversary of the Jumpers with Izzy Weinstein slated as caller.

Reservations for the excursion must be turned in to either Scholz or Liggett no later than March 29. If enough SD dancers reserve seats a chartered bus will be rented, otherwise a car caravan will be formed.

Graduation party night for the intermediate class is slated for Monday night (April 18). All Hoedowners are invited to attend the affair which starts at 8 p.m. in the American Legion Hall, 4061 Fairmount Ave.

The following Monday (April 25) a new beginners class will be formed with reservations open to all Convair SD persons. Only two such classes are started by the Hoedowners each year, one in spring, the other in fall. Any interested SD folk are invited to the first meeting April 25 in the American Legion Hall starting at 8 p.m.

No definite date has as yet been set but an all-Convair square dance will be held in either the latter part of April or early May. The Hoedowners will host the affair, with invitations extended to square dance groups at Convair Antelope Valley, Pomona, and Astronautics.

New Starting Time Set for Riflemen

A change in time of the rifle shoots for Convair San Diego and Astro Gun Club members will go into effect next month, said E. H. Horstman, CRA co-commissioner.

Shoots will be held at 9 a.m., instead of 8 a.m., starting with the Sunday (April 3) event at the Gillespie Field gun range. Change was made in response to requests received from rifle shoot participants, Horstman explained.

Scheduled for the April 3 shoot are a 50-yd. iron sight event, 50-meter any sight event, and competition shooting for field rifles and novices, said Horstman. There will also be a moving target shoot if enough interest is shown.

For information Horstman may be contacted at SD Plant 2, ext. 424, second shift.

Gun Club Sponsors Trap Shoot Sunday

Winners in all classifications will receive trophies at a registered trap shoot this Sunday (March 20) sponsored by the SD and Astro Gun Club at the Gillespie Field Range.

The shoot will start at 9 a.m., continuing throughout the day. Classifications will include 16-yd., handicap and doubles events. Special trophies will go to the "high lady" and "high junior."

Golf Club's 'Best Nine' March 26-27

Next golf tourney sponsored by the Convair Golf Club will be a "best nine" event March 26-27 at Circle R.

SD entries can be phoned to Alma, ext. 552, Plant 2. Taking reservations for Astro linksmen will be Hal Purnell, ext. 1313, Astro. Winning scores will be compiled by doubling each player's best nine-hole total and subtracting his regular handicap.

Astro players dominated the standings of the Feb. 20-21 "Scotch Twosome" event played at Bonita. Eleven golfers from Astro were among the winners grouped in four flights, compared with five from Convair SD.

Leading team in the first flight with a net score of 63 was H. V. Purnell and Harold Napier (both Astro). SD players, Fred Wells and John Mellett, finished in second with a net of 64.

The same scores, 63 and 64, won honors in the second flight. H. M. Smith and F. F. Gadient (both Astro) placed first, followed by R. D. Nickolaus and Ralph Long (both SD).

In the third flight, a low net of 63 won first place for Harry Williamson and O. V. Hasbrooke (both Astro). J. L. McKeough (SD) and J. W. Jackman (Astro) were second with a 66.

Astro participants swept honors in the fourth flight. Winners were C. A. Arapostathis and S. L. Chewning with 62, trailed one stroke back by Thomas Lazos and James Webb.

SD, Astro Keglers Split in Tourney Sponsored by NMA

Thirty-four teams took part in the annual Management Club bowling tournament staged by both Astronautics and San Diego recently.

Scores from this tournament have been entered in the Southern California tournament and will be included in the National Management Association's telegraphic tournament pitting teams from across the nation.

The Astro Five, team winners last year, repeated again, taking team scratch honors with a 2824. Team members were Bill Geopfarth, Forest Erwin, Frank Budz, Howard "Buck" Walsh and Jim Epperly.

High handicap team series went to the Golden Arrows of San Diego with a 3,021 total. Bowling were Harry Lund, E. V. "Gene" Laird, William Moyer, Jack Moore and Tony Zullo.

Zullo also turned in a 678 for high individual scratch series honors. C. R. Turley of Astro won the high scratch game with a 266 and the high handicap series with a 697. Handicap individual honors were won by Astro's R. F. Patterson with a 274 game.

IRC Fashion Show Tickets Available

A few tickets to the March 29 fashion show sponsored by the Industrial Recreation Council are still available at Convair San Diego employee services.

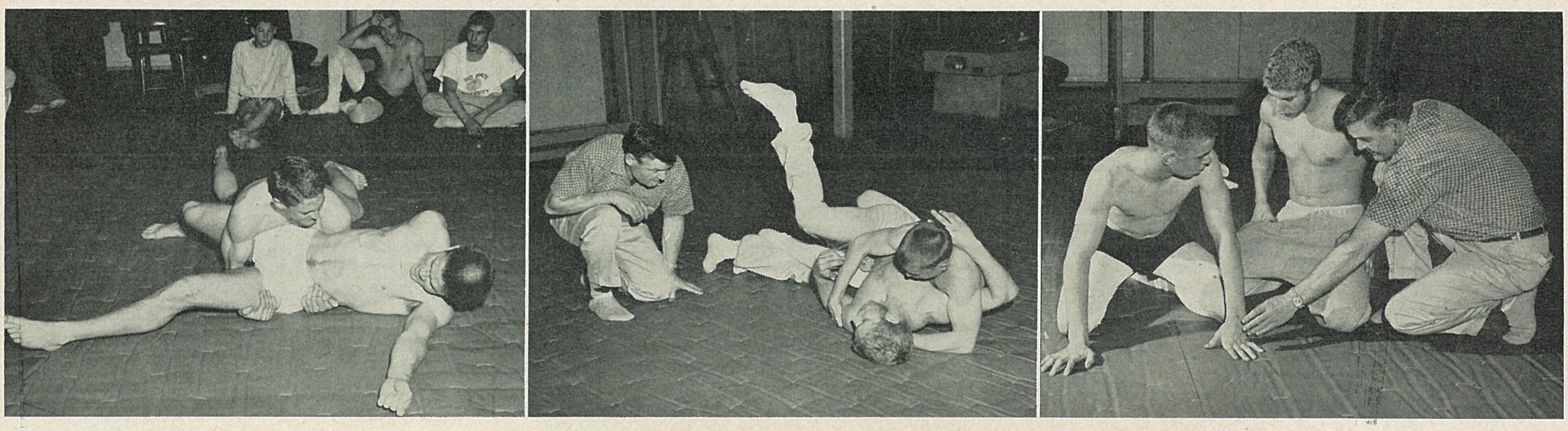
Convair SD women can purchase the tickets at either Plant 1 or 2 for $1.25, reminded Martha Woodberry, CRA commissioner of women's activities and chairman of the style show.

Fashions for the "Calendar Capers" theme will be furnished by Evelyn Wigton's stores.

The show will be held in the Palm Room of the U.S. Grant Hotel at 8 p.m.

FREE SKATE NIGHT SLATED MARCH 21

Convair SD folk are invited to roller skate free on Monday (March 21), between 6:30 and 9:30 p.m., at Skateland, Front and G Sts. Tickets can be obtained from CRA department representatives and at employee services, both plants.



FLIP FLOP—Wrestling team, under CRA sponsorship at SD, is holding workouts weekly on Thursdays in CRA Clubhouse on Pacific Hwy. starting at 8:30 p.m. Grapplers in far left photo are Convair sons, Sam Rubottom and Ash Bishop Jr. In center and right photos Convair son Randy Veal and Jeff Willis (Dept. 401) are tutored by Convair instructor, Joe Browning (Dept. 401). Regular workouts are held every Thursday evening at CRA Clubhouse.

CRA Sports & Recreation Convairiety

SD Wrestling Team Meeting On Thursdays

A CRA-sponsored wrestling team is now holding regular workouts every Thursday at 8:30 p.m. in the CRA Clubhouse on Pacific Hwy.

The group was formed about a month ago, according to Pete Beyrer of the CRA office, and presently numbers eight team members. Many of the participants are Convair sons of high school age. Their eligibility in other school sports is not affected, Beyrer said, pointing out that the team will be entered only in meets sponsored by the AAU.

The Convair team has already competed in two meets and is looking forward to additional competition during the next two months. Olympic rules are in force during meets, purpose of which is to train wrestlers for Olympic competition.

Beyrer said that any Convair sons or employees interested in joining the team should attend the Thursday evening workouts.

Coaching the squad is Joe Browning of Dept. 401, a Navy wrestler of some experience, who instructed a team on the USS California during 1938 that won the cruiser championship. The Convair coach is also the brother of the late James Browning, former heavyweight wrestling champion of the world.

Members of the team include Randy Veal (son of Paul Veal, Dept. 3), Sam and Mike Rubottom (sons of Herb Rubottom, Dept. 3), Ash Bishop Jr. (son of Ash Bishop, Dept. 401), Mike Kemper (son of Bob Kemper, Dept. 292), Jeff Willis (Dept. 401), Sam Longoria (Dept. 146), and George Mazara (Dept. 6).

Entries Open For SD Golf

A strong field of Convair San Diego's top golfers is expected to enter CRA's top medal play tourney, the Yater Memorial, which will be played April 2-3 and 9-10 at Flying Hills.

Entries for the CRA classic will open today (March 16) and golfers will have until March 25 at 5 p.m. to phone their reservations in to ext. 1705, Plant 1, according to Ken Wulfemeyer, golf commissioner.

The tourney is open to all Convair SD linksmen with established handicaps. The overall low net tourney winner will receive the huge Yater Memorial trophy which rotates from winner to winner each year on a perpetual basis.

Entrants in the 36-hole tourney will be asked to post a $1 entry fee, payable at the first tee, which will be used to purchase prizes. The prizes will be awarded to low gross and low net winners in each of the four handicap divisions.

Winner last year was Lee Arsenault (Dept. 146) who played two consistent rounds of 85, 84 to a 16-stroke handicap to lead the field with a low net of 133. Three other golfers were jammed in second place, one stroke off the pace.



CHAMP AGAIN—Ash Bishop, Pistol Club commissioner, raises arm of Buford L. Broadway (Dept. 401) in traditional championship gesture. Broadway won Convair SD's pistol championship during 1959, piling up most points in club events for third straight year.

Broadway Is Top Pistol Shot For Third Straight Year at SD

B. L. Broadway (Dept. 401-5), Convair SD's pistol shooting expert, made it three-in-a-row when he was given a special award this month as "high gun" of the CRA Pistol Club during 1959.

Broadway amassed a total of 3,357 points (out of a possible 3,600) during last year's Pistol Club events to win the individual championship for the third straight year. Runners-up for the annual honor were Joe Williamson (Dept. 401) with 3,186 points and Jim Halfacre with 3,159.

Winning pistol awards is nothing new to Broadway who spent 22 years in the Navy. He was a member of some of the top Navy pistol teams including a stint during 1951 as an alternate member of the All-Navy team. He also won a medal in the international Meyleigh Cup pistol competition with England and Canada.

Not content with resting on his laurels, Broadway added more points to his 1960 total by winning the master class of a shoot Feb. 28 with a 293 score. In second place, three points behind Broadway, was J. B. Carroll (Dept. 3-1).

Other winners in the .22 caliber police course event were Ash Bishop (Dept. 401-5) who won the expert class with 281 points and Dorcus Utter (wife of Arley Utter, Dept. 129) who took sharpshooter honors with 252 points. Dale Young (Dept. 31) was runner-up in the expert class.

In the centerfire short national match event the standings were reversed with Carroll totaling 279 points, followed by Broadway with 275. Jim Halfacre (Dept. 180) placed third with 262 points.

Softball Meeting Slated March 31

Softball activity for the 1960 season at Convair SD will start with an organizational meeting for shop league teams on Thursday (March 31) at 5 p.m. in the CRA Clubhouse on Pacific Hwy.

All departments planning to enter teams in the league are asked to send representatives to the meeting, according to Gil Crosthwaite, CRA commissioner.

Rules, eligibility requirements, equipment and schedules will be among subjects discussed. Crosthwaite said present plans call for league play to start in May.

Crosthwaite also requested that any players who have had either local or out-of-state city league experience contact him in regard to a proposed Convair AAA city league entry. Crosthwaite can be reached, after 1 p.m., at ext. 1245, Plant 1.

Garden Clubbers Prepare Entries For County Orchid Show in April

Orchids and roses will be uppermost in the minds of Convair SD Garden Club members next month.

Slated for April 2-3 in the Balboa Park Conference Bldg. is the San Diego County Orchid Show. As usual, Convair folk are expected to enter a majority of the blooms.

The following week, on Sunday (April 10), the Garden Club will stage its largest event of the year from the standpoint of entries, the annual Rose Show. The roses will be on display from 1 to 6 p.m. in the Floral Association Bldg., Balboa Park. Complete details on this event will be forthcoming in the March 30 issue of **Convairiety.**

Everett Henderson, Garden Club president, said entries for the Orchid Show must be submitted by 11 p.m. Friday (April 1). The judging will be held Saturday between 7:30 a.m. and 1:30 p.m.

Entries in the Orchid Show are expected from growers in Hawaii, France and England.

The public will be able to view the orchids on Saturday, from 1:30 to 9 p.m.; and on Sunday between 9 a.m. and 6 p.m. Tickets, priced at 75c each, are now on sale at employee services, both plants. Regular admission charge is $1.

CRA Calendar

(In view of the fact that Convairiety now carries the complete CRA calendar only at intervals, it is suggested that readers may desire to clip for future reference.)

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AEROMODELERS — Vic Korski, commissioner, ext. 1262, Plant 1. For information call Gary Witt, ext. 1507, Plant 1. Competitions usually first Sunday of month, 8:30 a.m., Clairemont-Mesa field.

ARCHERY—Gil Crosthwaite, commissioner, ext. 1245, Plant 1. Club meets third Thursday, 7:30 p.m., CRA Clubhouse, Pacific Hwy. Workshop in clubhouse open each Tuesday and Thursday, 7-9 p.m. Monthly shoots on second Sunday of each month.

ASTRONOMY—Keith Sears, commissioner, ext. 2900, Plant 1. Club meets first and third Fridays, 8 p.m. at CRA Recreation Area, Gillespie Field, El Cajon.

BADMINTON—Tom Richardson, commissioner, ext. 2556, Plant 1. Organized play and instruction Tuesdays, 7:30 p.m., Federal Bldg., Balboa Park. Open play for Convair employees and their families each day.

BALLROOM DANCING — Martha Woodberry, commissioner. Call ext. 1245, Plant 1, for information. Grace McGrath Dance Studio, Pacific Ballroom, 1106 Broadway.

BASEBALL—Pete Beyrer, commissioner, ext. 1245, Plant 1.

BASKETBALL—Gil Crosthwaite, commissioner, ext. 1245, Plant 1, after 1 p.m. (GIRLS' TEAM: Call Jean Todd, ext. 1017, Plant 1.)

BOWLING—Jim Hayman, ext. 1155, Plant 1; Mike Brooks, ext. 583, Plant 2, commissioners.

BRIDGE CLUB—Pete Beyrer, commissioner, ext. 1245, Plant 1. For information call Frank Westphal, ext. 2225, Plant 1. Meetings first and third Tuesdays, 7:30 p.m., at Hotel Barcelona, 326 Juniper St.

CAMERA CLUB—C. E. Schultz, commissioner, ext. 289, Plant 2. Regular meetings second and fourth Mondays, 7:30 p.m., Photo Arts Bldg., Balboa Park. Darkroom in CRA Clubhouse available to club members.

CHESS CLUB—Gil Crosthwaite, commissioner, ext. 1245, Plant 1, after 1 p.m. Club meets each Wednesday, 7:30 p.m., CRA Clubhouse. Sets available for lunch period games.

CHORAL CLUB—Martha Woodberry commissioner, ext. 1245, Plant 1. W. A. Vogel, director. Rehearsals each Monday, 7:30 p.m., CRA Clubhouse.

COIN CLUB—Gil Crosthwaite, commissioner, ext. 1245, Plant 1, after 1 p.m. For information call Joe Miller, ext. 2067, Plant 1.

DELTA DIVERS — Gil Crosthwaite, commissioner, ext. 1245, Plant 1, after 1 p.m. Meet fourth Tuesday of each month, 7:30 p.m., Conference Bldg., Balboa Park.

FISHING—R. W. Menzie, commissioner, ext. 1181, Plant 1. Club meets third Tuesday of each month, 7:30 p.m., Gillespie Field Clubhouse. Boat Building, E. R. Fink, chairman, ext. 1144, Plant 1.

GARDEN CLUB—E. L. Zimmerman, commissioner, ext. 2594, Plant 1. Club meets second Wednesday of each month, 7:30 p.m., Floral Assoc. Bldg., Balboa Park.

GLIDER CLUB—Vic Korski, commissioner, ext. 1262, Plant 1. For information, call Ted Sanford, ext. 1267, Plant 1.

GOLF—Ken Wulfemeyer, commissioner, ext. 1705, Plant 1. Convair Golf Club, call Harold Purnell, ext. 1313, Astronautics.

GUN CLUB—Jack Swank, ext. 1161, Plant 1; Gene Horstman, ext. 424, Plant 2, second shift, commissioners. Club meets second Tuesday of each month, 7 p.m., Gillespie Field Clubhouse. Club shoot, rifle, trap and skeet, first Sunday of each month at CRA range overlooking Gillespie Field, El Cajon. Open shooting each Sunday.

ICE SKATING—Martha Woodberry, commissioner, ext. 1245, Plant 1. Skating sessions for Convair employees and their families each Thursday at Iceland, 6055 Lake Murray Blvd. Special Convair rates between 6:30 and 8 p.m.

IN-PLANT ACTIVITIES—Equipment available for horseshoes, washer pitching, shuffleboard, chess, checkers, also cards for bridge, pinochle, etc. Contact CRA headquarters, ext. 1245, Plant 1, or department CRA representatives.

JEEP CLUB—Seasonal outings only. For information call Gil Crosthwaite, ext. 1245, Plant 1.

JUDO — Pete Beyrer, commissioner, ext. 1245, Plant 1. Instruction each Thursday at 7 p.m. in CRA Clubhouse on Pacific Hwy.

MODEL RAILROAD — Pete Beyrer, commissioner, ext. 1245, Plant 1. Meetings each Friday at 7:30 p.m., House of Charm, Balboa Park.

MOVIES — Reduced-price movies each Tuesday night at Academy Theater, 3271 University Ave. Adults 25c; children, 15c.

PISTOL CLUB—Ash Bishop, commissioner, ext. 1761, Plant 1. Home phone, HU-8-3460. Club shoots second and fourth Sundays of each month at 9 a.m. San Diego Police Pistol Range, Federal Blvd. and Home Ave.

RADIO CLUB—J. B. Baker, commissioner, ext. 491, Plant 1. Club meets Thursday after issue of **Convairiety,** 7 p.m., at Radio Club Headquarters, Harbor Drive.

RIDING CLUB—Marc Beresford, commissioner, ext. 1777, Plant 1. C. L. Pogorel, co-commissioner, ext. 2980, Plant 1.

ROCKHOUNDS — Dan Whorton, commissioner, ext. 426, Plant 1. Lapidary classes Tuesdays and Wednesdays, 7-9 p.m., Rockhound Shanty. Classes for second shift, Tuesdays, 12:30-2:30 p.m. Regular meetings second Thursday of each month, 7:30 p.m., Gillespie Field CRA Clubhouse.

ROLLER SKATING — Convair skate night, third Monday each month. Free tickets at employee services offices. Saturday matinees each week, 2-4:30 p.m. Skateland, Front and G. Admission 25c per person for Convair employees and their families. Admittance by club membership card. Cards available at employee services, both plants.

SKI CLUB—Joe Harris, commissioner, ext. 1133, Plant 1.

SOFTBALL — Tony Berardini, ext. 2910, Plant 1; Gil Crosthwaite, ext. 1245, Plant 1, commissioners.

SOLO FLYERS—Vic Korski, commissioner, ext. 1262, Plant 1. For ground school information contact Rex Robinson, ext. 1636, Plant 1. For commercial ground school call Bert Shields, ext. 2788, Plant 1.

SPECIAL EVENTS and COMMISSIONERS-AT-LARGE — Eddie Robinson, Paul Pearson, Jerry Schultz, Palmdale.

SPORTS CAR CLUB—Gerry Wright, commissioner, ext. 1130, Plant 1. Club meets first Wednesday of month, 7:30 p.m., House of Hospitality, Balboa Park.

SQUARE DANCING—P. E. Liggett, Maury Scholz, co-commissioners. Call ext. 1245, Plant 1, for information. Beginners and intermediate classes Mondays, 8 p.m., American Legion Hall, 4061 Fairmount Ave. Advanced classes Tuesdays, 7:30 p.m.; party night, fourth Saturday of month, 8 p.m., both at University Heights Community Center, 4044 Idaho St.

STAMP CLUB—Jack Benedict, commissioner, ext. 2693, Plant 1. Club meets first Thursday of each month, 7:30 p.m., Conference Bldg., Balboa Park.

SWIMMING — Pete Beyrer, commissioner, ext. 1245, Plant 1. Family swim night first Saturday of each month, 7-9:30 p.m., at Mission Beach Plunge.

TABLE TENNIS—Pete Beyrer, commissioner, ext. 1245, Plant 1.

TROPICAL FISH—Pete Beyrer, commissioner, ext. 1245, Plant 1. Club meets second Tuesday, 7:30 p.m., CRA Clubhouse, Pacific Hwy. Workshop every Tuesday and Thursday, 7 p.m.

VOLLEYBALL—Pete Beyrer, commissioner, ext. 1245, Plant 1.

WATER SKI CLUB—T. E. Mathews, commissioner, ext. 1117, Plant 1.

WOMENS ACTIVITIES — Martha Woodberry, commissioner, ext. 1245, Plant 1.

Do Your Old Series E Savings Bonds Carry New Interest Rate?

Beginning April 4, those in Convair who are not purchasing U. S. Savings Bonds by payroll deduction will be reminded of the many advantages of participation. In preparation, Convairiety this week carries the first of two "question and answer" installments which explain some of the major features of savings bonds.

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Q: What interest rates has the U. S. Treasury paid on Series E savings bonds since they went on sale in 1941? When was the last change made?

A: The first Series E bond returned 2.9 per cent when held to its full 10-year maturity. In May of 1952, the rate was increased to 3 per cent by shortening the life of the bond to 9 years and 8 months. Again in February, 1957, the rate was raised to 3¼ per cent by decreasing the life of the bond to 8 years and 11 months. The last change was made recently: effective June 1, 1959, Series E bonds return 3¾ per cent, compounded semiannually, when held to their maturity of 7 years and 9 months. This means more than 2½ per cent the first year and a half, then 4 per cent, guaranteed, to maturity.

Q: Does the new E bond still return $4 for every $3 invested?

A: Yes; a $100 bond still sells for $75, a $50 bond for $37.50, etc.

Q: When my E bonds mature (or reach the end of their extension period), what do I do to keep them active?

A: Nothing, just keep them. They renew themselves automatically, under a 10-year extension privilege, earning additional interest without any effort on the part of the owner.

Hold Your Bonds

Q: Should I cash in my old Series E savings bonds and purchase new ones, now that the interest rate has been increased?

A: No! All outstanding bonds, as well as new ones, have received an automatic increase of at least ½ per cent for their remaining period to maturity. Therefore, it will be to the advantage of practically all bond owners to hold onto their old Series E, as well as Series H, savings bonds, thus automatically receiving the benefit of the new interest rates. The older the savings bond, the greater its earning power. Since interest is based on a graduated scale, old savings bonds have a greater value now than ever before. There is also another consideration: by holding onto old savings bonds you can defer payment of federal income taxes on interest earned. This is particularly important for persons who will be over 65 when they cash in their bonds; they receive an extra tax exemption at this age.

Q: Do the new higher interest rates apply over the whole life of a Series E bond purchased before June 1, 1959?

A: No, there is no retroactive increase for periods prior to June 1959. The new higher rates for old Series E bonds start with the next full interest period beginning June, 1959, or after.

Q: Has the length of time to maturity or extended maturity of old bonds been changed?

A: No. The higher rate for the remaining time means an increase in the new, as against the former, redemption values.

Q: How can the E bond holder be sure to receive the new improved return if his bond carries the former terms?

A: Accurate payment is assured by the table of redemption values furnished all paying agents, on which current redemption values are automatically keyed to the issue date on each bond sold. The Treasury also double checks the payment made on each bond.

Payment Assured

Q: How can the E bond holder get complete information on the new terms?

A: All paying agents have received copies of the Treasury circulars giving all the terms and conditions, including redemption values, on both new and outstanding Series E and H bonds. The Treasury will also supply copies of the circulars upon request.

Q: Will the legislation which improved Series E and H savings bonds affect the payroll savings plan.

A: Only by improvement. In some organizations, 100 per cent of the employees are on the plan and are buying bonds regularly. Participation can't increase, but yields to employees will. In all probability, companies will do more than ever before to encourage their employees to purchase savings bonds, now that they are better than ever.

Q: Why did the President ask Congress for authority to increase yields on savings bonds?

A: The existing law had imposed a 3.26 per cent ceiling on savings bonds interest rates. Compared to current yields on some other forms of savings and investments, this was a handicap not only to bond sales, but also to their retention. The sale and retention of savings bonds are vitally important to the management of the national debt and for the general health of our economy. The Government also felt that it had a moral obligation to the millions of savings bond owners, who still retained matured Series E bonds and were holding onto their unmatured bonds in spite of rising interest rates in other forms of savings. For this reason, the increase in interest rates was applied to all outstanding Series E and H savings bonds, both matured and unmatured. This was the first time in the history of the savings bonds program that outstanding bonds received an automatic interest rate increase. The Treasury Department believes that the increased interest rates will have a healthy effect upon the savings bonds program, producing more sales while encouraging more bond owners to hold onto their old bonds.

Bonds as Gifts

Q: I am planning to purchase several savings bonds as gifts. Would there be a federal gift tax levied?

A: Series E bonds are ideal vehicles for gifts to take advantage of the yearly $3,000 Federal Gift Tax exemption, as provided by the Internal Revenue Code. You can make individual gifts of as many as four $1,000 Series E bonds (costing $3,000) to as many persons as you wish without having to pay a gift tax or having such gifts count against your lifetime gift tax exemption. If you prefer to give current income securities, the Series H bond is available; it can be used as a gift in the same manner as the Series E bond.

Many wise investors take advantage of the above provision in the Federal Tax Law, and save themselves the yearly income tax on earnings from that amount of investment capital. Eventually they save their estates from paying Federal Estate Taxes on the total amount of these tax-free gifts.

Q: I have misplaced several of my savings bonds and have accidentally mutilated a half dozen more. Can you tell me how to get new bonds?

A: If your bonds are lost, stolen, or destroyed, give prompt notice to the Bureau of the Public Debt, Division of Loans and Currency, 536 South Clark Street, Chicago 5, Illinois. You should explain the circumstances under which the bonds were lost, stolen, or destroyed. If the latter, you should send whatever fragments you have. It would also be to your advantage to provide the Bureau with the serial numbers and registration of the bonds. The Division of Loans and Currency will send you a special form which you should fill out in accordance with instructions. Duplicate bonds that are issued to you will bear the dates of original bonds that were lost or mutilated.

All owners of savings bonds should keep a personal up-to-date record of their bonds handy, but **NOT** with the bonds themselves.

Q: If I put $18.75 a month into E Bonds, how much will I have in five years, considering the new rate?

A: In five years, you will have $1,214. In seven years and nine months, you will have $1,991.

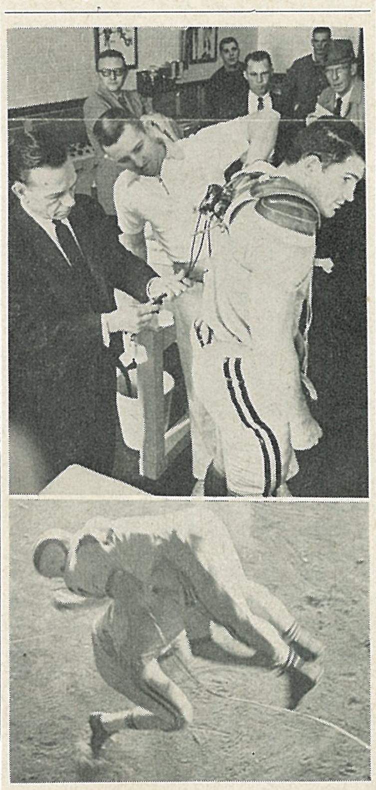
Q: May children buy savings bonds?

A: They may and do. Many students employed part time, notably newspaper carriers, buy savings bonds. Millions of students also purchase when they complete their stamp albums and exchange them for bonds.

Q: With the new increase in savings bonds interest rates, which became effective June 1, 1959, when will my bonds begin earning at the new rate?

A: Interest is applied to savings bonds only at the end of each six-month period after the date of purchase. Since the new interest rates went into effect in June, 1959, the first six-month interest accrual period was last December.

(To be continued in March 30 Convairiety.)



INSTRUMENTED — Colorado guard Joe Romig is "wired up" by Galen Holcomb, human factors chief at Stanley Aviation, before head-knocking session. Below, Colorado linemen Larry Gundall and Romig collide.

Shock of Football Scrimmage Greater Than Speedy Bail-out

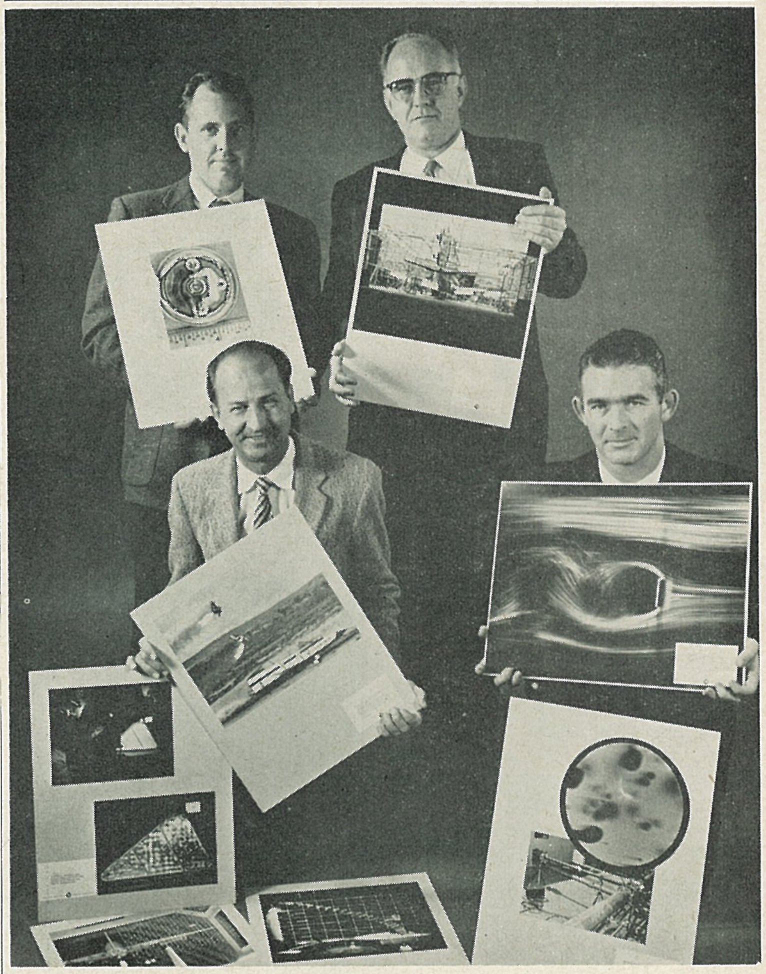
Football linesmen during scrimmage are subjected to more "G forces" than would airmen bailing out in a B-58 escape capsule at high speeds, a novel engineering test indicated last month.

(Impact of rapid acceleration or deceleration is measured in Gs, meaning the times the human body increases in weight due to sudden changes in speed.)

The test was conducted on the campus of the University of Colorado at Boulder. Two starting guards suited up under the surveillance of Galen Holcomb, human factors chief of Stanley Aviation Corp., subcontractors for the capsule. Miniature devices for measuring forces were placed on shoulder pads and connected by wires to a recorder. The two linemen squared away before a battery of TV and news cameras, blocking and tackling with game-like gusto. On each play, they withstood forces up to 70 Gs, without injury.

Such high G forces could be endured only because of the brief duration, however, Holcomb explained. The high impacts lasted only .01 of a second or less.

The B-58 escape capsule was designed to a maximum lateral force of 15 Gs during ejection. Limits for forces in other directors were set at 35 Gs. As with football players, the impact on ejecting airmen would be of very short duration. Catapult ejections from a rocket sled consistently have recorded jolts lasting less than .023 second.



PRIZE PHOTOS—Convair SD photographers, Ernie Flisrand and Jack Matthews (foreground); Bob Herrmann and O. W. Rollins (standing), with SD photo lab entries which nabbed total of nine awards and mention in technical film symposium.

Convair Cameramen Dominate Technical Film Symposium

Photographers from Convair San Diego and Astronautics walked away with more than half of the awards at the first annual technical film symposium held in conjunction with National Engineers' Week.

The 18 Convair entries in the still photo section won 11 places and a mention while the 12 motion picture entries submitted by SD and Astro motion picture sections took five awards.

Astro still photographers took two firsts—Henry Kierstead for his spectacular shot of the contrail of the first Atlas missile fired from Vandenberg AFB (**Convairiety**, Sept. 30, 1959) in the pictorial classification; and R. A. Weissinger for his technical print on photo stress in color division.

Nine awards and a mention went to San Diego still photographers. Ernie Flisrand's seat ejection shot took first in human interest division, and Dan Otto's aerial of missile firing from an F-102 won second in the same classification.

Other awards went to: Jack Matthews, first, data evaluation, and a mention in experiment documentation; Flisrand, second and third, data evaluation, and third, color; Bob Herrmann, second, color; O. W. Rollins, second, experiment documentation.

"Plasma Jets," motion picture submitted by Convair San Diego motion picture section, was judged second in Class A.

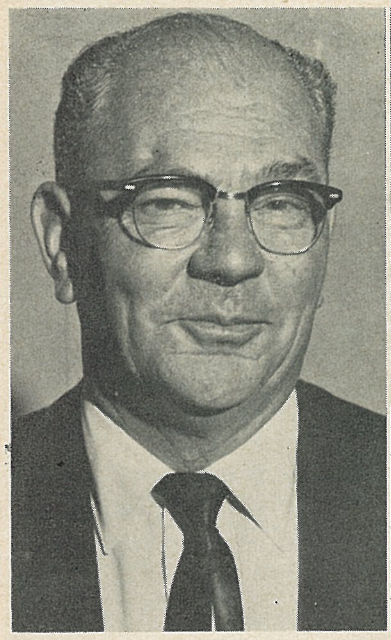
Astro's six motion picture entries took the lion's share of the awards, winning four—two first places and two second. "High Speed Cine Radiography" was first in Class A; "Photo Elastic Stress Measurements," first, and "Liquid Oxygen Density Volume Studies," second in Class B; "On Target, the Atlas ICBM," second in Class D.

Martin Miller, SD still photo lab assistant supervisor, assisted Cdr. C. A. Grubb of the Eleventh Naval District in arrangements for the symposium, under direction of Capt. J. C. Luprens, USN, chairman of special projects committee. Judges were C. K. Eaton, director of photography at the Los Angeles Art Center School, Dr. M. P. Capp and R. L. Bedore of SD State College's engineering department.



PRIZE WINNERS—Astro photographers, Henry Kierstead and R. A. Weissinger, display pictures which took firsts in recent technical film symposium during National Engineers' Week.

A Few of Convair's Many U. S. Bond Buyers Speak Their Minds



Cedric Durst of San Diego. His bonds helped to put a son and daughter through college.



J. F. Baebler of Astro. His bonds helped finance a house, a car and a wedding.



George Belberoff of San Diego. He is saving with bonds "because it makes sense."



A. D. Parsons of San Diego. He built a triplex apartment, with bonds.



Vincenzo Minuto of Astro. With bonds he purchased a new home and an acre of land.

C-V CONVAIR

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GD GENERAL DYNAMICS

Convair Division of General Dynamics Corporation.

Convairiety

San Diego EDITION

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Vol. 13, No. 7 Wednesday, March 30, 1960

SAN DIEGO, POMONA, ANTELOPE VALLEY, VANDENBERG AFB, CALIF. AFMTC, CAPE CANAVERAL, FLA., FORT WORTH, TEX.

Atlas, Terrier Given Space in Annual Report

Convair Division was prominently mentioned this week in the annual report to share owners issued by General Dynamics Corporation.

"Packing maximum mission performance and flexibility into minimum weight and space has been one of the major engineering achievements of the B-58," the report stated.

"The technical philosophy of minimum size-weight — required partly by the need of the system to avoid long-range radar detection—led to the development of the disposable pod where payload and extra fuel for long-range operation will be carried beneath the fuselage. Bomb bay and fuel tanks would be jettisoned on return missions. B-58 performance and flexibility have been proven in high-altitude flights at speeds in excess of Mach 2 (1,500 mph) over long ranges and at low-level flights (500 ft. above the ground or less) for 1,400 miles at speeds greater than 700 mph. Such high-low capability makes radar detection of the B-58 extremely difficult on the vulnerable target approach phase of its mission.

"These are only some of the significant breakthroughs in the basic design of the B-58, which, as an operating airplane, currently represents the highest point in aerodynamic achievement."

(Continued on Page 5)



REPORT — Frank Pace Jr., board chairman of General Dynamics Corporation, issued annual report to share owners this week.



BRRRRRRRR—Snow and ice covered runways and clung to 880's fuselage, too, this month during snow storm at Atlanta where Delta's first ship is performing yeoman duty, training flight and ground crews.

Delta's First 880 Busy Training Crews Despite Nasty Weather

Delta Air Lines' first 880 is performing in yeoman fashion, ready and willing to be aloft at all times during the several weeks it has been based at Atlanta, Ga.

Mel Clause, Convair SD assistant supervisor of field service, who returned recently from Delta's headquarters, reports that the 880 had piled up 175 hours during the first month in spite of one of the worst winters in Atlanta's history.

"Everyone is extremely satisfied with the 880's performance," said Clause. "It is flying seven and eight hours a day, making as high as 17 takeoffs and landings each day, which speaks well for a new-type plane in its initial operation by a customer."

The plane is based at the Atlanta airport and most of the practice landings and takeoffs are made from an auxiliary military field, North Field at North, S. C., which is less crowded.

The Delta Queen, delivered to the airline in February, is being used for crew training. Delta pilots who have been checked out in the Convair jetliner, including Capt. T. P. Ball and Capt. J. H. Longino who flew it from San Diego, have taken over the training. Convair SD pilot A. P. Wilson and L. Knudsen, flight engineer, returned to San Diego the first part of March after a few weeks in Atlanta training crew members.

Mechanics have been called in from Delta's out stations for training in maintenance operations. They are rotated through a two-week on-the-job training program which includes such typical operations as engine removal and installation, general airplane servicing and handling.

Harry Addis of Convair SD recently arrived at the Georgia base to join Convair support personnel there. Others are Court Zeiss, Walt Belliston, Bob Fitzgerald, and Don Seaburg, FAA designee inspector. Convair field service men are at the airport around the clock working with Delta engineering and maintenance sections. They answer questions, interpret instructions, check plane's performance, monitor training, and transmit information back to San Diego.

Delta Air Lines expects to take delivery on two more 880s by the end of next month.

'Share in America' Bond Buying Drive Will Begin Monday

Monday (April 4) will mark the start of Convair San Diego's first U.S. Savings Bond Drive since 1958.

Convair SD is presently half "in" and half "out" when it comes to purchasing Savings Bonds through payroll deduction. Bond buyers now total 50 per cent of plant population, the lowest figure in two years.

"Outs" will get a chance to become "ins" during the week of April 4-8. All non-buyers will be asked to participate. Tab cards will be made available to facilitate authorization of payroll deductions.

Participation in the program is optional for all persons.

Those presently purchasing bonds through payroll deduction will not be approached during the drive. They are, however, encouraged to increase amounts or order bonds of larger denominations at this time.

All Convair operating divisions and off-site bases are participating in the drive, part of a national campaign to "share in America's future."

During 1959, more than 123,000 individual bonds were purchased through payroll deduction at Convair SD—amounting to $4½ million.

Obvious benefits of increased interest rates and enforced savings can be obtained through purchase of bonds. When held to maturity they pay 3¾ per cent per year.

Right now, "Share in America's future" is a slogan. For non-bond buyers it can become a fact.

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Germeraad Named On IAS Council

Don Germeraad, chief engineering test pilot at Convair San Diego, has been elected to the Institute Council of IAS, according to an announcement released this month.

Thirteen new members of the Council, which acts as a board of directors for the Institute of Aeronautical Sciences, were chosen at the national New York meeting the first of this year. Germeraad was one of five named from the Western Region.

He served as chairman of the San Diego section of IAS during the 1957-58 term.

Enter Your Name Now For Padre Ball Ticket Drawing--It's Free

Lucky winners of CRA's first baseball ticket drawing will be sitting in the stands at Westgate Park for the first Padre home-game series between April 15 and 27.

Entries for the first drawing open today (March 30) and close at 3:30 p.m., April 8.

To enter, SD baseball fans should write name, clock number, shift, department number, location and telephone number on a slip of paper. Two tickets will be awarded each winner. One entry only is allowed.

Boxes are located in employee services, Plants 1 and 2; at Rose Canyon, in the office of Virginia Cannon, ext. 2125; Fordham St., office of Bessie Cooper, ext. 100; and at the ramp, in the office of Ralph Sachs, Bldg. 37, ext. 425.

Thrifty

Bonds Buying Houses, Cars

A new house, new car and a pending wedding have all been associated with U. S. Savings Bonds in the J. F. Baebler family of Astro.

Baebler, inspection general supervisor, began to buy bonds shortly after joining Convair in 1941. In fact, he still holds one of the old-type bonds issued in 1942.

For years the Baebler family salted away bonds while educating their children. Then in 1956 they purchased a new home, making the down payment and supplying furnishings from the bonds.

Last year a new car was financed entirely through bonds.

On the agenda now is the pending wedding of daughter Sharon Lee.

"We expect to finance the wedding largely through our bonds," Baebler said.

* * *

A definite feeling of security "because there's nothing safer than an investment in your government."

That's one of the main reasons that Cedric Durst, security guard captain at SD, has participated in the U.S. Savings Bond program during his 13 years with Convair.

(Continued on Page 2)

No. 4 Airplane to Base In Florida For Awhile

Base of operations for 880 jet transport No. 4 was due to be switched from California to Florida this week.

Plane No. 4, now in the midst of flying regular airline routes in the functional and reliability program for FAA certification, was scheduled to fly to Miami some time this week. Using the southern Florida airport as its home base, it will be flown over Eastern and Middlewestern routes. Hops to cities east of Chicago all will be in the short and intermediate range, 150, 400 and 700 miles.

The three crews accompanying the craft will alternate in flying it during the 40 flights, which should take about a week.

From San Diego, the white and gold jetliner was to touch down at El Paso, Texas, and Atlanta, Ga., on its way to the second home port at Miami.

All firm plans hinge largely on the state of flying weather along the Atlantic seaboard and inland, explained SD flight engineers. If closely-scheduled flights are delayed by bad weather, the plane will return immediately to San Diego and continue its F&R flights to cities in the Southwest.

The huge Convair-built craft took off from Lindbergh Field on its first F&R flight at 8:50 a.m. March 17. With Convair, FAA, G.E., and TWA personnel aboard, it visited Los Angeles, Yuma, Tucson, Phoenix, Las Vegas before circling back to Los Angeles and home to San Diego. It landed at 8:35 p.m. after 11 hours and 45 minutes on the road.

The hour originally allotted as service time at each airport was stretched, often to two, to give airline personnel and maintenance people at the various airports a chance to inspect an 880 at close hand.

Piloting the plane on its first trip around the Southland territory was No. 4's permanent captain, W. D. Carrier. Other members of the crew were U. S. Johnson, co-pilot; J. L. Fogleman and L. Scrivner, flight engineers; R. J. Palk, flight test engineer; and W. G. Walker, instrumentation engineer.

Federal Aviation Agency men will act as pilots, co-pilots, and monitors on every flight of the 880 during the F&R program.

Two more days of flying continued through Saturday of that week to total 16 hours and 50 minutes in the air on 21 flights. Each leg of a trip, with a landing and takeoff at an airport, is considered as one flight of a stipulated distance.

A Convair SD ground crew of six maintenance men and their foreman accompanies the plane on every flight to service the 880 away from home. Steve Barinka, superintendent of field operations, has directed the ground support crew on some of the first flights. Arrangements are made with various airlines to use their ground support and refueling equipment at the airports. However, Convair SD maintenance men handle the fueling themselves.

Field operations crews at Convair SD work during the night to service the plane after each trip so that it will be ready to wing away on time the next day.

Breaking into the F&R program for a few days last week, the plane was flown northward to the Puget Sound area in search of icing conditions. From Seattle, the 880 went on to Anchorage, Alaska late last week for checkout of anti-icing systems which keep the wing, tail, windshields, and engines free from ice.

Grand finale of the F&R program, which should be completed by the middle of April, will be six cross-country flights. Two non-stop flights across the United States will be made to each of three Eastern cities, New York, Baltimore, and Miami.

Three crews have been assigned to plane No. 4 throughout the intensive flight program to keep the plane aloft during two flight operations in every 24-hour period. Alternating with the first crew are two others: Don Germeraad, pilot; L. C. Brandvig, co-pilot; L. J. Rice, D. T. Kjell, flight engineers; A. E. Hunt, flight test engineer; and R. J. Dunn, instrumentation engineer; and A. P. Wilson, pilot; L. E. Pilling, co-pilot; K. J. Rogers and R. C. Schaefer, flight engineers; C. W. Pieper, flight test engineer; and F. E. Wilson, instrumentation engineer. Alternate pilots are P. M. Prophett and John Knebel, and alternate co-pilot is W. H. Harse.

Laboratories in New Quarters At Convair SD

First phase of the rehabilitation of materials and processes laboratories on the first floor of Bldg. 5 at Convair San Diego Plant 1 was completed this month.

Seven separate laboratory functions are now housed in completely new, modern quarters in the 3,400-square foot area added to the original laboratories' space, announced W. M. Sutherland, group engineer of the materials laboratories at SD.

Occupying the new area are the corrosion, finishes, environmental, electrochemistry, paint application, chemical processes, ceramics laboratories.

Two other functions, microanalysis and fungus testing and the spectrographic lab, are moving into remodeled rooms of the original area.

Modern fluorescent lights have been installed throughout and ducting put in for an air conditioning system. A decorative color scheme, worked out with SD furnishings group, brightens the area with color combinations alternating in rooms assigned to different lab functions.

New work counters, cabinets, and hoods are in place. Among new equipment for lab use is a demineralizer to supply deionized water for chemical processing. A Stromberg-Carlson intercom system connects the downstairs laboratories with materials and processes offices on second floor of Bldg. 5.

Completion of the entire rehabilitation program, which began last summer, is slated for this September, said J. C. George, coordinator of the project. At that time all 26 laboratories will be settled in newly-remodeled quarters. Work will proceed in two stages to allow lab operations to continue throughout construction.

★ Convairiety ★

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Thrifty

Bonds Buying Houses, Cars, Even Wedding

(Continued from Page 1)

In Durst's opinion, participating in the bonds program accomplishes a twofold purpose, in that it helps both the government and the individual.

For the most part, Durst considers his investment in savings bonds as something to fall back on in case of emergency.

"However, savings bonds have helped a great deal in putting both my son and daughter through college," Durst adds.

* * *

A new home and land speculation have been goals realized by Astro's Vincenzo Minuto of Dept. 758 through U. S. Savings Bonds.

As a serviceman during World War II, Minuto bought and saved bonds. Following the war he and his wife accumulated bonds regularly through payroll deductions.

Joining Convair in 1952, Minuto continued to buy and save bonds. Last year he used his accumulation to buy a new home. And he purchased an acre of land in Spring Valley.

"I'll either build on the land or sell it and buy more," Minuto said. "Without our savings through bonds, this would not have been possible."

* * *

A triplex apartment in Chula Vista is an ambition realized by Convair SD's Alton D. Parsons who financed the structure through U. S. Savings Bonds.

Parsons, an assistant foreman in Dept. 31, started saving bonds shortly after the first Victory Bond Drive at Convair San Diego in 1942, has continued participation in the program ever since.

He cashed bonds in after they reached maturity, put the money into constructing an apartment on property he already owned.

Now, Parsons looks upon the U. S. Savings Bond program as an ideal way to build a "cushion for retirement."

"There are ways to make more money," Parsons asserts, "but I feel savings bonds are the safest investment I can make."

* * *

George Belberoff in Dept. 401 at Convair SD authorizes payroll deductions for U. S. Savings Bonds because "I think it's a good idea for myself and Uncle Sam."

"I'm not saving bonds for a particular purpose, other than the fact that it makes good sense to have some savings, and bonds are probably the most secure investment a person can make."

Belberoff has been participating in the savings bonds program at Convair ever since he joined the company in 1949.

He points out that participation in the bonds program is somewhat of a family trait. His sister, Olga Mason, secretary in Dept. 93-0, has been a consistent bonds saver for some time.

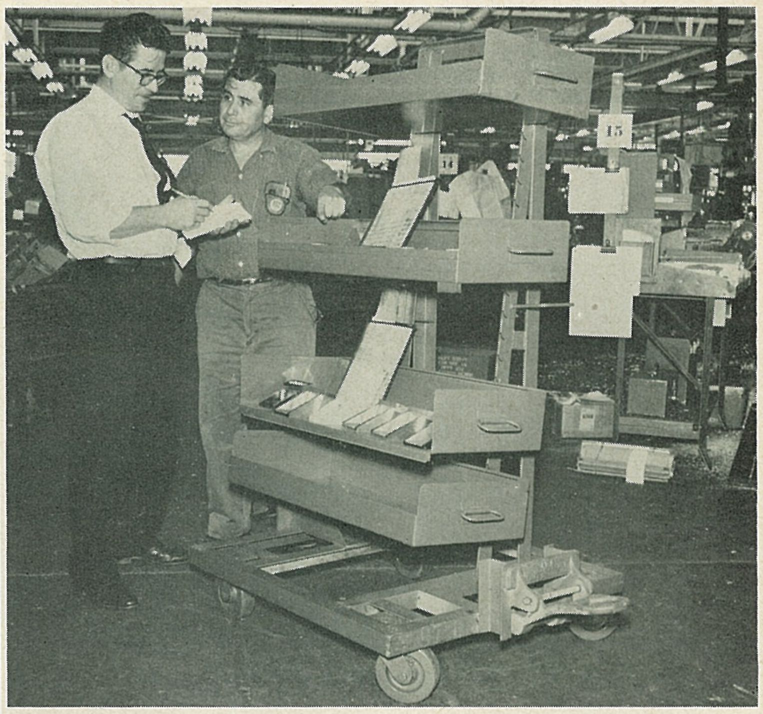
Classes to Improve Reading Will Begin

Convair SD and Astro people may sign up now for reading improvement classes to start April 18 at the Midway Adult High School.

Designed to increase reading speed and comprehension, classes will be twice a week from 6:30 to 9:30 p.m. Since the number of openings is limited, prospective students are urged to make reservations by calling AC-3-1671.

Scholarship Earned To St. Augustine's

Roger Hedgecock, 13-year-old son of L. L. Hedgecock of Convair SD motion picture section, is one of ten San Diego boys to win a scholarship to St. Augustine's High School. The ten winners received the highest standings in comprehensive examinations given 900 eighth-grade parochial school students over three years of school work.



RED RUN—Fire-engine red skids and red-trimmed order envelopes send rush items from Convair SD fabrication to production points in record time. V. J. Rocco, Dept. 115 assistant foreman, gives David Romero, Dept. 192, final instructions before sending priority shipment on its way.

Bright Red Skids and Envelopes Used to Speed 'Hot' SD Parts

A new method of expediting went into use at Convair San Diego Plant 1 this month to speed up delivery of critical jet transport parts from fabrication to production areas within the plant.

Put into effect by manufacturing control, under direction of T. F. McAleer, chief, and E. T. Stewart, general supervisor, the system is designed to alleviate shortages wherever possible in jet transport assembly, saving manhours and time.

"Hot" parts, needed immediately, are rushed on fire-engine red skids to assembly or field operations. Priority orders, which put the rush runs into motion, are placed in special red-backed plastic envelopes (known as "red rods") to separate them from routine daily orders of manufacturing.

Superintendents in major assembly areas and the general foreman of manufacturing control at Plants 1 and 2 submit their lists of critically needed items daily to the fabrication superintendent and manufacturing control general foremen.

Orders are given immediate attention in fabrication and parts sent on their way, hand-serviced from area to area by production control dispatchers.

"By assuring that there is no delay in the fabrication department, the new system will help to cut behind-schedule manhours in assembly," remarked Lee Shipstead, manufacturing control general foreman.

Bright red handling equipment and a limited number of special plastic envelopes have been provided to fill rush order requests from the 880 and 600 assembly line.

IRC Sponsors Golf Tourney

Registration will be open until April 27 for the 18th annual Industrial Recreation Council Golf Tournament to be played May 7-8 and 14-15 at Torrey Pines.

Entry blanks can be filled out at employee services, Plants 1 and 2, for the match play event. A $3.50 entry fee is required. Ken Wulfemeyer, commissioner, said the tournament is limited to golfers with established handicaps. Winners and runners-up in each handicap group will be awarded trophies.

★ ★ ★

At a CRA golf sweeps held March 12-13 at Bonita 18 golfers won low gross and low net honors in three handicap groups, Wulfemeyer reported.

Leading the first handicap group with low gross honors was Dick Ramsdale (Dept. 267) followed by Glenn Grantham (Dept. 133) and Wayne Hines (Dept. 180). Top low net score in the same handicap group was tallied by Bill Clifford (Dept. 25). Ranked second and third were Gene Polpeter and Gene Villegas (both Dept. 31).

Fred Wells (Dept. 3), Al Tepper (Dept. 401), and C. R. Lind (Dept. 31) finished one-two-three for low gross honors in the 15-21 handicap bracket. Low net scorers were Bob Kregling (Dept. 288), Jim Herring (Dept. 6), and Jim Ensign (Dept. 15).

Handicappers 21 and over were led by Lee Baker (Dept. 401) who took low gross honors followed by Chuck Klebert (Dept. 6) and Bill Carr (Dept. 190). Low net awards went to Bill Terry (Dept. 6), C. H. McLeod (Dept. 400), and Don Pegan (Dept. 400).

Family Helped By Red Cross

San Diego Chapter of the American Red Cross has declared a SD Convair family, whose Spring Valley home last week was shattered by an exploding water heater, as a disaster case.

The Red Cross has temporarily lodged the family of Junior Holton (SD Dept. 115) in a motel until a rental apartment or house can be found. They are also coordinating offers of assistance from private parties and groups.

Nearly all the family's possessions, including clothing and furniture, were destroyed. Mrs. Holton, who suffered a badly bruised ankle, was released from the hospital last Thursday. None of the seven Holton children was seriously injured.

The Rev. James A. King of Foothills Methodist Church, Spring Valley, has appealed for donations of food, clothing and furniture for the Holtons.

Whodunit TV Show Filmed in SD Plant

Camera crews swung high over the Convair 880 assembly line at Convair San Diego recently as they filmed a cops and robbers episode for the television program, "Manhunt."

The Convair plant will be the setting for scenes in the coming episode, "The Day the Roof Fell In," which will be seen some time this spring over Channels 4 and 10 at San Diego.

Actors Victor Jory, Patrick McVay, and Chuck Henderson were directed by Fred Jackman through sequences taken in various parts of SD Plant 1. Based on an actual case of a jewel theft ring, plot of the story revolves around an electric drill traced to Convair SD's salvage yard.



FINAL FLIGHT—B-58 No. 1—named "Grandpappy"—made last flight in March to Kelly AFB in San Antonio, where it will be used by ground training crews.

B-58 No. 1, Called Grandpappy, Flown To Kelly For Ground Crew Training

"Grandpappy" — B-58 Hustler No. 1 — has been "grounded."

He's now stationed permanently at Kelly AFB in San Antonio, where B-58 crews are using him for maintenance training.

Grandpappy, the first bomber in the world to go Mach 2, made his first flight Nov. 11, 1956, as thousands of Convair folk cheered. The crew—B. A. Erickson, J. B. McEachern, and C. P. Harrison—congratulated him for a job "well done."

After that, Grandpappy continued to make supersonic history throughout a rigorous test program.

He volunteered for all sorts of chores: early performance tests; flutter tests; missile-launching runs during the Air Launch Ballistic Missile Program at Cape Canaveral; and subsonic canopy-off flights.

Grandpappy helped prove to the Air Force just how durable his B-58 breed was last year when he made 11 flights in 10 working days during Project Whirlwind.

Grandpappy was also available for the important full-power test, involving a drastic test of pressure surges in fuel lines, run recently at Convair.

And he helped later in wheel, brake, and tire taxi tests at Carswell AFB.

No doubt, Grandpappy has had more than his share of thrills. Perhaps the greatest came when he made a flyby over top brass-filled stands at Andrews AFB in Washington, D.C.

All told, Grandpappy made 150 flights.

600 Jetliner to 'Fly' On Foreign Stamp

Convair SD's 600 jetliner will fly for the first time next week —on a stamp that is.

The government of the Principality of Liechtenstein on April 6 will release their first issue of stamps commemorating 30 years of airmail stamps.

Valued at 50 rappen, the red and brown jet 600 stamp will be among the new issue speeding Liechtenstein mail.

F-106 Pilot 'Just Along For Ride' As Plane Flies Self Across U.S.

A F-106 all-weather interceptor flew itself non-stop across the continent last Wednesday from California to Florida. A pilot flew the takeoff and landing, but the rest of the time he was just "along for the ride."

Maj. Frank Forsyth, the Air Materiel Command's chief acceptance pilot for the F-106, took the interceptor off the Palmdale runway at 11:48 a.m. (EST). A minute later, the F-106 picked up an electronic signal from the ground, and Forsyth took his hands from the controls. The Convair-built F-106 then flew itself to Jacksonville, Fla.

Flying time for the aircraft was three hours and 12 minutes; for the pilot, five minutes. Over Jacksonville, Forsyth again took the controls and flew back to Tyndall AFB, Fla., landing at 3:46 p.m., Eastern time.

The 2,500-mile flight was the longest ever made by an interceptor aircraft without refueling. No attempt was made to set a speed mark, although the F-106 holds the world's speed record of 1,525 miles an hour, set last December at Edwards AFB, Calif.

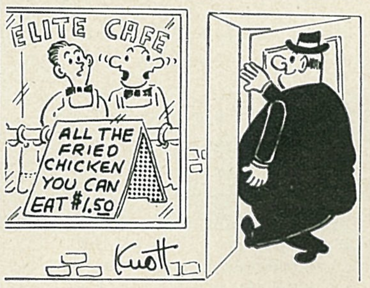
The F-106, built at Convair San Diego for the Air Defense Command, was equipped with external fuel tanks for initial leg of the journey. They were jettisoned over the Air Force firing range at Yuma, Ariz.

Key to the fully-automatic flight was the aircraft's MA-1 navigation and fire control system, built by Hughes Aircraft Co. This system is capable of flying the aircraft through all phases of an intercept mission from shortly after takeoff to touchdown.

Before the F-106 took off, engineers pre-programmed its entire flight profile into the MA-1 system's "Digitair" airborne digital computer.

With this data and continuous range and bearing information flashed to the aircraft by TACAN (Tactical Air Navigation) stations across the country, the MA-1 system automatically compared the jet's position to the prescribed route and supplied signals to the airborne flight control system. It automatically corrected heading and altitude.

"It was like riding in the back seat of a limousine with a TV set and someone else doing the driving," said Forsyth.



"Quick, Joe! Hide that fried chicken sign."

Savings Bonds Designed to Encourage Thrift Among Americans

(This is the second, and last installment of "question and answer" information on U. S. Savings Bonds. Beginning Monday, April 4, all in Convair who are not buying bonds by payroll deduction will be given an opportunity to sign up.)

Q: I am a young person on my first job and am interested in beginning a savings program. Savings bonds were originated before my time, so please tell me about the different series and which ones I should buy.

A: There are only two types of savings bonds that you can purchase: Series E and Series H. Series E bonds have been on sale continuously since May 1, 1941. It is an appreciation bond, which means that it increases in value the longer you hold it. It sells for 75 per cent of its maturity value. In other words, a $25 bond sells for $18.75; a $100 bond for $75. Your money grows by 33⅓ per cent in just 7 years and 9 months, the new maturity period for E bonds. They earn 2½ per cent interest for the first year and a half, and 4 per cent to maturity. Series E bonds come in denominations of $25, $50, $100, $200, $500, $1,000 and $10,000.

The Series H bond is a companion bond to the Series E. It is a current income bond and interest is paid semi-annually in the form of interest checks. Interest is the same as the E bond, 3¾ per cent if held to full maturity of 10 years, with a yield of 2½ per cent for the first year and a half, then 4 per cent to maturity. Series H bonds are purchased at face value of $500, $1,000, $5,000 and $10,000. No matter when an H bond owner cashes his bond, he receives the full face value.

Curving Interest

Q: I've been buying bonds regularly out of my paycheck. I've often wondered why rich people don't buy savings bonds.

A: Savings Bonds are owned by people in practically all income groups. They are sold in denominations of $25 to $10,000. The smaller denominations are the most popular and are purchased by people on the Payroll Savings Plan. The $500, $1,000, $5,000, and $10,000 denominations are purchased by self-employed, managerial and executive groups, professional people, and those who have substantial sums to invest, usually from the sale of property or goods. The savings bonds program, however, is designed for the average saver, not the wealthy. Outside of the strictly savings field, the Treasury offers other types of securities, such as treasury notes, certificates, and bonds, all of which are transferable, negotiable, and subject to fluctuation in the market.

Q: I have wondered why the interest curve is used for savings bonds. Why don't you receive full interest at once, as you do in a savings account?

A: Savings bonds, with an overall rate of 3¾ per cent, now pay 2½ per cent interest for the first year and a half and then four per cent to maturity. This interest payment is now more in line with other types of savings. But the bond holder should bear in mind that to the Treasury Department, the savings bond is a long-term bond, designed to encourage Americans to save for the future, for the big thing in their lives, for long-term goals, such as retirement, a home, children's education. And remember, too, that the rate of interest is guaranteed for the full life of the contract.

Encourage Growth

Q: My husband buys savings bonds on the Payroll Savings Plan at Convair. Does the government pay General Dynamics Corporation to sell bonds?

A: The Treasury Department does not pay companies to operate the Payroll Savings Plan for the automatic purchase of savings bonds, nor does it pay banks to sell these bonds. All issuing agents offer this free service to their employees or customers at their own expense, principally because of their patriotic convictions that the sale of savings bonds is good for the country, good for the community, good for the bond owner. They encourage growth and prosperity of our people and our country.

Q: Will the government really pay 3¾ per cent interest or is it possible for the rate to be reduced? Are there any other monetary advantages in savings bonds besides the interest rate?

A: (a) The full faith and credit of the U. S. Government is behind its pledge to pay the announced rate of interest, which is guaranteed for the full term of the bonds. A savings bond is an instrument for saving with a fixed, guaranteed rate of return, with specified intermediate cash values. It is registered, non-marketable, and safe from loss, theft, or destruction. Treasury marketable bonds, on the other hand, fluctuate with the market, which means their cash value at any given time may be more or less than the original cost.

(b) Other savings bond characteristics which may be considered as monetary savings are: the interest earned is exempt from state income taxes; the interest on E bonds can be declared either yearly on federal income tax returns or when the bonds are cashed; a bond owner can redeem his savings bond at HIS convenience, either before maturity or in the extended maturity periods; savings bonds may be purchased and redeemed at no cost to the savings bond owner.

How to Convert

Q: My bond holdings are concentrated in Series E bonds. Since I am nearing retirement, I would now prefer to receive current income from my investment. May I exchange my E bonds for H bonds?

A: Yes, you may—beginning January 1, 1960. The Treasury has just announced this exchange privilege—not only for all E bonds, but also for unmatured F and J bonds—which was effective on that date. Under this provision, the tax liability on accumulated interest due on your E, F, or J bonds is deferred until you finally cash in the H bonds purchased with their proceeds. In effect, this becomes a self-administering annuity program.

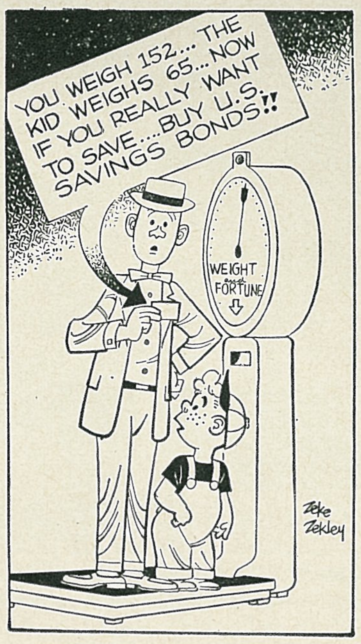
Q: How do I make this exchange of E bonds (or F or J) for H bonds?

A: Take the bonds you wish to exchange to your bank, together with whatever cash may be needed to make up the difference between the current cash value of your bonds and the price of the H bond to be bought (denominations are $500, $1,000, $5,000, and $10,000). Your banker will take your order and forward it to the Federal Reserve Bank, which in turn will issue your new H bond (or bonds) and mail it back to you. Or you can handle it direct with the Federal Bank or the Treasurer of the United States.

Q: How much of my E (or F or J) bond holdings can I convert to H bonds in any one year?

A: There is no limit to the amount you may convert. If you wish, you may take your entire holdings and have them converted in a single operation.

* * *



Anecdote Penetrates to Heart Of Savings Bonds' Benefits

(Excerpted from a column by Sylvia Porter in the Los Angeles Mirror News.)

When my husband changed jobs last spring he stopped buying U. S. Savings Bonds by deduction of a specified sum from his paycheck every week.

He thereby cut off a way we had been saving regularly and automatically for years, and I vividly recall my pledge at the time:

"Out of every paycheck that goes into our joint account, I'll earmark exactly the amount we had previously been putting into bonds. Periodically I'll draw it out of the bank and then we can invest it as we think proper. You can trust me to do this."

Because, like most wives in America, I manage the household account, I was put in sole charge of earmarking and I was enthusiastically faithful to the program at the start. This weekend, though, as I was glancing back over our bank statement, I suddenly realized that:

(1)—It has been months since I've done any earmarking. I think it was in August that I forgot the whole thing.

(2)—The extra money we had been saving so painlessly over the years isn't in the account. The total is about the same as it was before my husband stopped the deductions.

(3)—I don't know where the money has gone. We haven't done or bought anything unusual. Our cost of living hasn't been bounced sharply upward.

(4)—I have no valid excuse for what has happened. I only admit that the money has been frittered away in dribs and drabs.

Here in our own experience is the key reason why the U. S. Savings Bond program deserves continued life and support. This little anecdote goes to the heart of the program's value . . . (which) lies in the discipline of saving which a payroll savings program imposes upon us . . .

Would we have "lost" our savings had my husband still been buying bonds via payroll deductions? No. The money would have gone into the bonds before I got my hands on it.

Would we have been squeezed by the lack of dollars in the household account? No, we weren't squeezed in the past.

Before you shrug off a payroll deduction for bonds because you can get an extra per cent by saving elsewhere, think about this . . .





WITH THE RAF—Convair Pomona's Opal Anderson (Dept. 31), left, is shown with other American volunteers for Royal Air Force while in training in Canada in 1942. Only 25 of 300 volunteers were accepted for Air Transport Auxiliary membership.

Pomona Woman Recalls Wartime Flying For RAF

From hat designing to ferrying multi-engine bombers and fighter aircraft in war-torn Great Britain is "two giant steps" in anyone's book.

Add to this record crop dusting, leading an aerial circus, instructing cadets for the Army Air Corps, and various other flying experience, and you've just scratched the surface of the aviation career of Convair Pomona's Opal Anderson (Dept. 31).

Opal, who is so tiny that she had to sit on pillows to see over the instrument panels in some of the big planes she flew in World War II, currently is a development assembler in the experimental factory at Convair Pomona, working on the second shift.

During the day and on weekends, she splits her time between finishing a partially completed home she bought several months ago in Ontario, and instructing flying students.

"I almost bit off more than I could chew when I bought the house," she said. "But now I have just about completed it and I plan to spend more time instructing student pilots."

Opal was designing hats for a Chicago milliner when the "flying bug" bit her, and she earned her first license more than 25 years ago. She continued to study flying, and was the first woman in Chicago to earn a commercial license. Later she earned an instructor's certificate.

She organized an all-girl flying club in the Chicago area in the late 1930s, and this led to an all-girl flying show which barnstormed the country for two years. Immediately prior to World War II she became a primary and secondary flight instructor for the Army Air Corps, and taught some 50 cadets to fly in two civilian flight schools.

"Then someone decided that only men should instruct and I, along with a number of other women, was without a job," she recalled. "Many of us offered our services to the Ferry Command, but were turned down."

In 1942 Jackie Cochran, famous aviatrix and the wife of Floyd Odlum, former Convair board chairman, started recruiting American women for the Air Transport Auxiliary of the Royal Air Force, and Opal volunteered.

Of the 300 who volunteered and were sent to Canada for training, only 25 were selected for membership in the ATA. Opal was one of the 25.

She spent three and a half years in the United Kingdom, and flew 53 different types of aircraft, ranging from primary trainers to four-engine bombers.

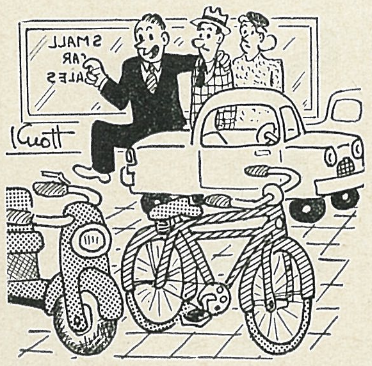
"I was actually checked out in only six types. The others I flew from our 'Blue Bible,' a book containing performance data and instructions on all types of United Nations aircraft," she recalled.

Her flight log includes two trans-Atlantic flights, one as plane commander of a B-24 and the other as co-pilot of a PBY. Aside from a few forced landings, none of which resulted in a serious accident, her closest scrape was a takeoff during a bombing raid.

"Several of us were taking off in Spitfires, and due to the engine noise I didn't even know the raid was in progress until I felt my plane being buffeted about. Fortunately there was no damage."

Following the War Opal worked at several aviation jobs, including flight instruction and crop dusting. She believes she is the only woman who worked as a professional crop duster, at least at the time she was in the business. All in all, she believes she has more than 10,000 hours of pilot time.

"I stopped counting a long time ago," she explained.



". . . and for those who really want to save money, we have . . ."

Convair Cooperation With USAF Reserve Earns Appreciation

Convair FW recently received a special certificate of appreciation from the commander of the Tenth Air Force for "outstanding cooperation" with the 622nd USAF Reserve Hospital at Carswell AFB.

Maj. Gen. Harold B. Maddux, Tenth Air Force Commander, presented the certificate to Frank W. Davis, Convair vice president-FW manager.

Col. William Rosenblatt, commander of the 622nd said: "The fine example of Convair in allowing participation in training and their splendid cooperation is vital to such units being adequately trained as a unit to cope with disaster."

Convair FW employees presently training with the reserve unit are Walter Hill, James Hanson, Harold Williamson, and Jack Thomas.

FW Will Make Six Teaching Awards

Convair FW will present six "excellence in teaching" awards of $250 each this year to three high school and three junior high school science teachers in Fort Worth.

A Convair committee will select the winners, assisted by recommendations of a special committee of TCU professors.

Winners will be named about May 1, according to Joe B. Ellis, industrial relations administrator-engineering.

Link With Home

Convair Ham Operator Links Greenland Troops With Home

T. N. Lawrence of Dept. 7-7 at Convair FW is doing his share to bolster morale of Air Force troops at remote Sondrestromfjord AFB in Greenland.

Lawrence's ham radio station, W5GVZ, has for months afforded one of the only vocal links between many a Greenland-based airman and his Fort Worth friends and relatives.

Accordingly, Greenland Amateur Radio Club has presented Lawrence with a plaque for his "fine cooperation and work . . . in making phone calls for the men at this station to their families and loved ones."

It all started a couple of years ago when a contingent of Carswell AFB airmen transferred to the Greenland base.

"A good friend of mine contacted me from Greenland over a ham radio set," Lawrence said, "and the calls have been snowballing ever since."

Lawrence now toils at this selfless labor about four hours a week, usually setting up about 15 calls per session.

On occasion he serves as a sort of one-man messenger center, with such heart-warming information as, "It's a boy!" "The kids are doing fine," or "Your husband is due to fly home next week." And, of course, there are emergency calls, too.

At the Greenland base, Lawrence has been told, it's not uncommon for airmen to queue up in 50-below weather to await a radio call from home.

"These calls are terrific morale builders for our boys in Greenland," said Maj. David M. Robinson, who is back in Fort Worth following a stint at Sondrestromfjord AFB.

An avid ham operator and member of CRA Radio Club, Lawrence has certificates — exchange cards acknowledging contact—from 87 different foreign countries. Actually, he's talked with citizens of 156 different countries.

None of these calls, he admits, has been more rewarding than the one to Greenland.

Convair Day Slated For Ramona Pageant

A special plan is being offered Convair people, both men and women, either at SD or Astro plants, who wish to attend the Ramona pageant at Hemet this spring.

Delta Toastmistress Club of Convair has reserved the date of May 1 with reservations to be made before April 12 through Juanita Wilson (Dept. 190), HU-8-6476; or Joyce Simon (Dept. 1-71), CY-5-1967. Round-trip fare on the chartered bus, coffee and doughnuts served en route, and ticket to the play totals $5.50.



HELLO GREENLAND—T. N. Lawrence, Dept. 7-7, at Convair FW contacts Sondrestromfjord AFB in Greenland for Maj. David M. Robinson, who was formerly stationed there.

Expert Hobbyist Carves Marvelous Miniatures

With a battered pocketknife and a remarkable talent for carving Doyle Knipp (SD Dept. 401) can turn a piece of wood into a miniature spinning wheel half the size of his little finger.

Or, if you prefer, he'll transform a rough gun stock into a work of art, carved with detailed wildlife scenes and carefully inlaid in part with polished abalone shells.

Knipp, a strapping six-footer and former chief gunner's mate in the Navy, during the past eight years has completed a "houseful" of miniature furniture.

For instance, the spinning wheel. It's less than two inches high, so painstakingly duplicated after the original that even the tiny bobbin turns, although it is only twice the size of a pinhead.

Then there's a Duncan Phyffe tilt-top table. The size of a fist, it's about as large as he makes this type of furniture. To make the table, Knipp blended together no less than 13 different kinds of wood.

All of the miniatures are detailed, yet solidly built. The tiny drawers in a hutch do not stick. Two rocking chairs are so authentic they almost creak as they tilt back and forth. A china cabinet, patterned after an original more than 200 years old, flashes back a three-dimensional effect as legs and shelves are reflected in minute mirrors.

Sometimes Knipp works from a sketch, but more often depends on memory. He's experimented with different sets of carving tools, but always goes back to a trusty pocketknife.

Knipp turns his talents in other directions also. Altogether, he's designed and carved six gun stocks. One, inscribed with oak leaves and acorns, was given to a friend. It was later sold for $400.

Knipp, however, is dead set against trying to produce the gun stocks as a money-paying sideline. "It's a hobby," he asserts. "If I were to turn it into a production-line job I'd probably lose all my incentive."

He hesitates to say how long it takes to carve and finish a rough gun stock. But it's definitely a matter of months.

The finish alone is a major project. Knipp polishes the stock and forearm with linseed oil until it "bleeds," in other words becomes completely saturated. Then he applies four coats of French polish. "This type of finish improves with age," Knipp asserts, "and needs only a light buff to bring out the soft glow."

His present project is a 30.06 rifle stock with basket weave design and abalone insets highlighted with manzanita wood.

Knipp is especially proud of his "black beauty," a 7.35 Italian Carcano. One example of the detailed work on the rifle is a bear's head at the end of the forearm. The head itself is white birch, with a red cedar tongue, white bone teeth, and ironweed eyes and nose.

A form block maker at Convair SD, Knipp has also turned out some full-size desks and tables, some with decorative inlays a quarter-of-an-inch thick.

Knipp never pushes any of his projects to rapid completion. He only works for short periods of time at his Lakeside home. "It's a good way to relax," he explains.



MINIATURES—Doyle Knipp (SD Dept. 401) can set "houseful" of furniture atop dining room table. Miniatures displayed are products of eight years of spare time effort. Under magnifier Knipp examines spinning wheel, duplicated after original even to tiny turning bobbin.

B-58, Jet Transports and Atlas Prominent in Dynamics Report

(Continued from Page 1)

It is on future transport aircraft that the greatest value of the B-58 may lie, in its influence on engineering, design and production, the report continued.

"The technical and management competence necessary to develop such a complex high performance aircraft, while meeting minimum size-weight requirements, has set new design and reliability standards for compatible systems. All aspects of systems engineering, management and production must profit from such advances. And these must, in due time, be translated into improvement of the civilian economy. Integral wing tanks with Scotchweld sealing and coating found immediate commercial application in the 880 and 600 near-sonic jet transports. . . ."

The report points out that "the 800 and the 600 will be the most economical commercial jets. Higher speed will give faster turnaround time. Four-across seating insures maximum payload on first-class flights.

"The overall increase in productivity of 880 and 600 four-engine passenger jet transports for medium- and long-range traffic will have an important effect on the operations of the airlines. For example, Convair 880 and 600 operating costs per ton-mile on all routes over 600 miles are estimated to be from 20 to 30 per cent lower than those of four-engine piston aircraft. As more jet transports go into service and the public becomes accustomed to their greater speed, comfort and reliability, air passenger traffic will increase," the report stated.

The nation's first operational Intercontinental Ballistic Missile, the Atlas, is described as "the prime example of both the military and scientific importance of space flight . . . and one of the nation's principal strategic deterrents."

Some idea of the Atlas achievement can be gained by its performance characteristics, the report continued. "Weighing, with fuel, about 260,000 pounds, the Atlas takes off straight up from a stationary position with a thrust of more than 360,000 pounds and within five minutes has achieved a speed of 16,000 miles per hour.

"While first fully-instrumented test flights called for a six-and-one-half-hour countdown, Atlas now has an operational checkout of only 15 minutes. And this highly automated weapons system needs a launch crew of fewer than six technicians. Of great importance, also, is the role that Atlas will play in space transportation: initially as a booster for such space projects as Centaur, Atlas-Agena vehicles and Atlas-Mercury—the nation's first attempt to put a man into space."

Terrier, Tartar and Redeye guided missiles are termed extremely effective countermeasures to high-performance aircraft. "They are also examples," the report states, "of the computer feedback principle in association with electronic sensing devices that project control into remote environments." . . . "All are based on electronic guidance systems that automatically solve target problems."

Improvements that will greatly enlarge the amount of air space safely available for aircraft operations are also pointed out in the report.

Gross Resigns; VPs Appointed

NEW YORK — Lambert J. Gross, for the past 13 years chief financial officer of General Dynamics, announced his resignation this month as vice president-finance and treasurer of the Corporation, effective March 31.

In accepting the resignation, Frank Pace Jr., chairman of the board, expressed the personal regret of officers and directors of General Dynamics.

* * *

NEW YORK — The appointment of C. Rhoades MacBride and W. P. Gullander as executive vice presidents of General Dynamics Corporation has been announced by Frank Pace Jr., chairman of the Corporation's board of directors.

MacBride has been senior vice president for operations of General Dynamics since April, 1959. He joined the Corporation in January, 1958, as vice president for operations.

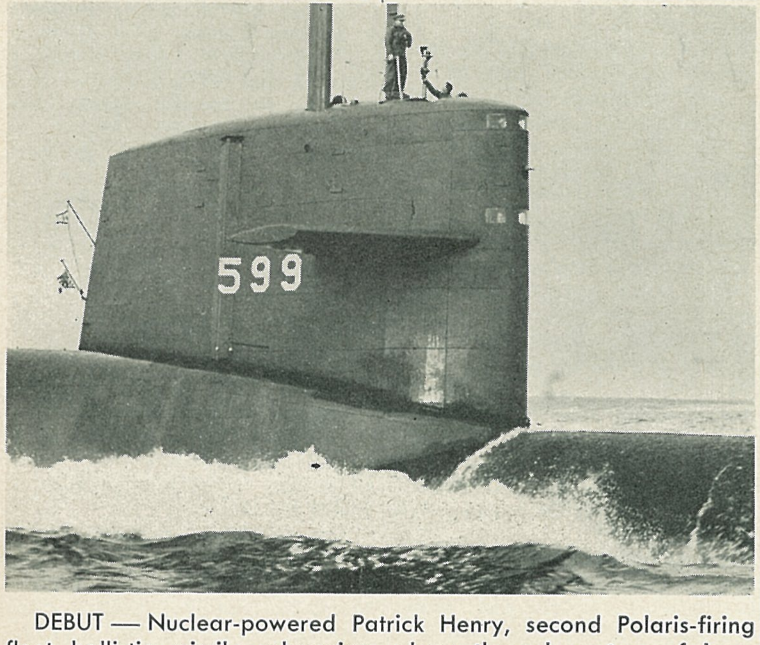
A native of Chicago, Ill., MacBride studied economics and metallurgy at Lehigh University. He was a partner in the business consulting firm of Robert Heller & Associates before joining Dynamics.

Gullander has been with the Weyerhaeuser Company of Tacoma, Wash., for the past eight years as vice president-finance. A native of Big Rapids, Mich., and graduate of the University of Minnesota, he was employed by the General Electric Company for 22 years, serving as chief traveling auditor, manager of subcontract operations of the Aircraft Gas Turbine Division and, later, district manager, secretary and treasurer of the General Electric Supply Company.

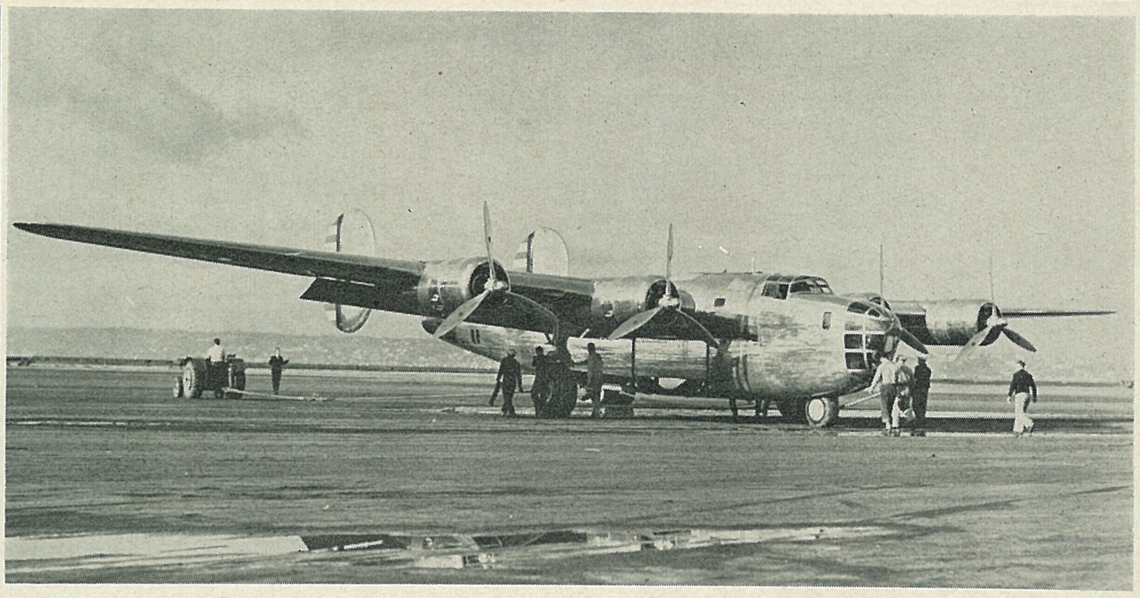
Reserve Submariner Gets Nuclear Cruise

SAN DIEGO — Lt. Raymond F. Bean, USNR, research and development engineer at General Atomic Division, this month was assigned to a 12-day training cruise aboard the nuclear submarine USS Halibut.

The first reserve officer to be assigned to an atomic sub, Bean boarded the vessel at San Francisco for a cruise to Pearl Harbor. He is a member of Submarine Reserve Division 11-43, commanded by Cdr. D. K. Callow of Convair Astronautics Dept. 250-2.



DEBUT — Nuclear-powered Patrick Henry, second Polaris-firing fleet ballistic missile submarine, plows through waters of Long Island Sound en route to Electric Boat, its builders, after sea trials.



AT ROLL-OUT—XB-24 is shown at roll-out for taxi test, four days before first flight at San Diego.

XB-24 Designed, Built, Flown Within a Year

(This is installment No. 31 of Convairiety's continuing history of Convair.)

Officials of Consolidated Aircraft were called to Wright Field in January, 1939, for a conference with the chief of the Air Corps, Maj. Gen. H. H. Arnold. A long-range running mate to the B-17 Flying Fortress was needed. They were asked to produce a heavy bomber with a speed of more than 300 mph, a ceiling of 35,000 feet and an operating range of 3,000 miles.

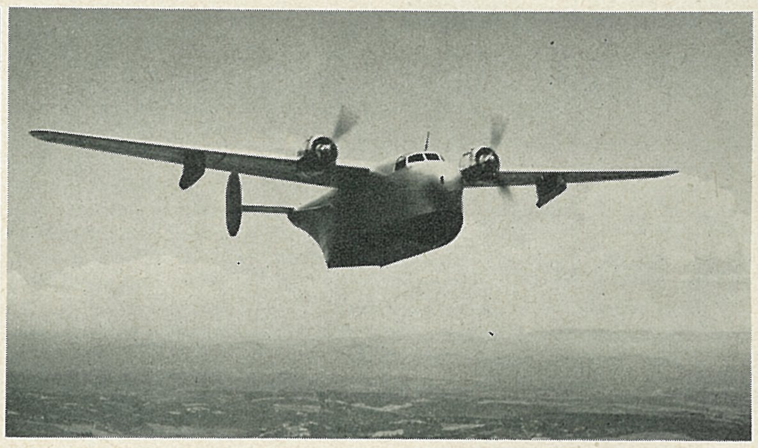
Design work started at once under direction of I. M. Laddon, Consolidated's chief engineer. Preliminary specifications were ready Jan. 20. Mockup construction began before the end of the month. Tests of a wind tunnel model were finished in February and fabrication began. Nearly 30 changes in the preliminary specs were agreed upon at a conference Feb. 21 in Dayton. The Air Corps representative was Lt. Donald L. Putt, later to become project officer in the development of the B-29 Superfortress.

A contract for construction of the mockup and one prototype XB-24 was signed March 30, and fabrication was well along when World War II started Sept. 1. Wing and fuselage were ready for mating Oct. 26, and the XB-24 made its maiden flight over San Diego on Dec. 29.

This was a remarkable feat of design and construction — from three-view drawing to finished four-engine bomber in less than a year. It was made possible by Consolidated's earlier gamble on the Model 31 flying boat, which was launched in May, 1939. The seaplane's wing with its hydraulic flaps was transferred to the bomber. So was the twin-finned empennage. The XB-24's tricycle landing gear (employed for the first time on a heavy bomber) derived in part from the company's experience with tricycle beaching gear on the flying boat.

Laddon has shared the credit with the Air Corps for the bomber's swift development: "I told Hap Arnold he could have the plane by the end of the year if—and it was a big if—he would make Wright Field keep its hands off the project. I asked for an inspector with authority to make decisions on the spot, and he gave us a good one, Maj. E. R. McReynolds. Back in Dayton, Putt was absolutely gold-plated. He offered useful suggestions, such as a shift of engine location. And he had a very tactful way of sidetracking the high brass when they came around wanting to make changes."

As previously stated, the contract for building the experimental model of the bomber was signed March 30. So great was the pressure to build up national military strength, however, that the first PRODUCTION order was placed three days earlier, on March 27. This called for seven B-24s. The contract grew to 46 bombers before the first test flight and rose swiftly thereafter. The French Purchasing Commission contracted for 60, with option for 120 more, in the spring of 1940; the Air Corps ordered 352 in September, and another 700 in May, 1941. (By the end of the war, the B-24 would become the most heavily produced four-engine aircraft in history.)



MODEL 31—Slender wing is in sharp contrast to deep-hulled bulk of Consolidated's Model 31. Wing and tail were transferred to B-24 bomber.

B-58 Escape Capsule Will Be Fired Soon

First static firings of the B-58 escape capsule are tentatively scheduled at Convair FW April 5 and 12.

Both the pilot and crew version of the Stanley-built capsule will be tested with fully instrumented dummy airmen from a bulkhead mounted on a jig.

"Purpose of the tests," according to J. E. Hickok, project test engineer, "is to determine the structural integrity of both the B-58 bulkhead and the capsule itself during ejection."

A "double-barrel" rocket-catapult will be used to eject the capsule, Hickok added.

Special Trucks Take Over Task Of FW Waste Paper Disposal

A new system for disposing of plant waste paper at Convair FW is being installed and will be operational within 60 days.

B. R. Main, traffic general foreman, said the new system is being activated in segments in order to "work out the bugs as we go along."

The plan calls for use of two Packmaster trucks, eliminating use of the plant incinerator for burning waste paper. Trucks include a 16-cubic yard storage body with attached packing blade which can compress some 40-cubic yards of paper.

When filled, the trucks will release the material in the county dump.

Security Risks We Can Do Without



TANTALIZING TED

"Boy, if you knew what I know about our new missile defense system . . ."

Luxury Charter Bus On Display at SD

Convair San Diego people will have a chance to inspect one of the new luxury buses of the SD Transit Co. tomorrow (March 31). The bus, of the type used for chartered trips, will be located at the east end of Overpass 2, across Pacific Hwy. from the SD employment building. It will be open to the public from 10 a.m. to 5 p.m.

Engineering Society Honors SD's Coggan

B. F. Coggan, Convair vice president and SD manager, recently received the 1960 distinguished membership award from Tau Beta Pi, national engineering honor society.

The award was presented through the Alpha chapter at Michigan State University where Coggan received degrees in electrical engineering and electronics in 1939.

He was cited for "outstanding personal character and accomplishments in the engineering and management fields."

Coggan is a member of the Society of Professional Engineers, American Rocket Society, American Institute of Electrical Engineers.



COMPLETES THIRTY—Otto Peterhansel, Dept. 31 at SD, one of Convair's "early settlers," celebrated his 30th anniversary early this month.

Four Car Clubbers Snag Rally Laurels

Four Convair SD Sports Car Club members won laurels in outside competitions during March, Tom Jackson, club spokesman, reports.

Vince Capelletti and Barrie Freeman took home the first place trophy at a navigation rally sponsored by the Palomar Sports Car Club March 20. Jackson and Peter Aperlo placed second March 13 at a navigation rally sponsored by the Women on Wheels Sports Car Club.

A club meeting will be held next Wednesday (April 6) starting at 7:30 p.m. in the Natural History Museum, Balboa Park. Two color and sound movies will be shown.

Log Book Entries

Service Emblems

SAN DIEGO

Service emblems due during the period March 16 through March 31:

Thirty-year. Dept. 215, R. L. Williams.

Twenty-year: Dept. 6, Irvin Olson, J. R. Spurgeon; Dept. 7, W. L. Tate; Dept. 8, J. E. Mikol; Dept. 31, W. G. Klingenberg; Dept. 135, F. J. Serio; Dept. 145, H. E. Kropf; Dept. 188, L. P. Sabat; Dept. 192, L. M. Guess; Dept. 206, Michael Chakarun; Dept. 230, H. E. Brisbin; Dept. 400, J. C. Chuckta, M. W. Lamb, C. R. Myers.

Fifteen-year: Dept. 31, R. C. Darsie, M. C. Hutchison, Bruno Messmer; Dept. 120, C. F. King; Dept. 145, D. F. Isaacs; Dept. 188, E. L. Whiteman; Dept. 190, W. L. Carr; Dept. 230, J. T. Smith; Dept. 233, L. R. Turpin; Dept. 400, L. R. Garner, E. W. Watts; Dept. 401, G. E. Basich, R. A. Lee.

Ten-year: Dept. 3, N. E. Wallace; Dept. 6, A. E. Anderson, Onita C. Hall, Gerald Marshall, A. H. Riffel, Verna D. Scholl; Dept. 7, Florence P. Webb; Dept. 15, Edgar Howard; Dept. 25, J. B. Rognlie, H. R. Schmitter; Dept. 31, D. R. Sanchez, Anthony Yurgelon; Dept. 44, Collette C. L'Etourneau; Dept. 129, P. A. Young.

Dept. 146, T. P. Negrete; Dept. 171, C. E. Deaver, H. M. Janes; Dept. 188, C. L. Vineyard; Dept. 215, Lois R. Gibbs; Dept. 232, E. W. Plott; Dept. 266, E. G. Von Trulzschler; Dept. 280, B. W. Duke; Dept. 288, Leona W. Baker, E. N. Hately; Dept. 400, I. G. Smith; Dept. 401, Lydia E. Biehn, R. C. Bostrom, Elsie B. Gregovich, M. G. Phillips, Goldie W. Tucker.

Promotions

SAN DIEGO

Promotions to or within supervision effective March 14.

Dept. 6-35, Engineering: To asst. computer group engineer, A. E. McQuoid.

Dept. 7-40, Electronics: To asst. foreman, J. A. Majchrowicz.

Retirements

SAN DIEGO

EDWARDS—Ray A., Dept. 192-5. Seniority date Oct. 18, 1950, retirement effective Jan. 8, 1960.

ROTH—Sam J., Dept. 101. Seniority date Oct. 22, 1946, retirement effective March 18, 1960.

Births

SAN DIEGO

ADAMS—Son, Andrew Eugene, 8 lbs., 11½ oz., born March 16 to Mr. and Mrs. Allen A. Adams, Dept. 15-6.

DALE—Daughter, Kerrie Shawn, 6 lbs., 12 oz., born March 16 to Mr. and Mrs. Robert W. Dale, Dept. 188-3.

Deaths

SAN DIEGO

McGLASHAN—Robert G., Dept. 44. Died March 15. Survived by wife, Beatrice.

OSCARS—Louis J., Dept. 401. Died March 19. Survived by wife, Louise, daughter, three brothers, three sisters, one grandchild.

WILD—Helen R., Dept. 231. Survived by three daughters, Dorothy Grill, Carolin and Frances Wild.

$50 Campster Program Open For SD, Astro

A campster building program to be launched soon at Convair SD's Gillespie Field boat building facility will be open to both Convair SD and Astronautics participants.

More than 30 persons at Convair SD have signed up to build campsters at Gillespie Field since initial announcement two weeks ago.

Reservations are being accepted on a first-come, first-served basis. Those among the first to register will be among the first to start work on the campsters. At Astro, sign-ups are being taken at ext. 1111. At Convair SD, ext. 1245, Plant 1, is the number to call.

The building program will probably be launched within the next two weeks, as soon as supplies and tooling are on hand.

Campsters to be made are suitable for mounting either on pickup trucks or trailer beds, measure 62 inches from floor to overhead, are 78 inches wide and eight feet long.

Total cost for the basic campster (without accessories) is roughly $50. The campsters are made of plywood, covered over with masonite and fiber glass.

Persons signed up for the program will be contacted and most likely organized in groups of four. Employing the crew method it will probably take about four hours to finish a basic campster.

Water Skiers Fill Schedule

A summer schedule of tournaments and practice sessions for the Convair SD Water Ski Club was decided at a meeting March 14, according to Tom Mathews, commissioner.

Unless conflicting with a tournament date, practice sessions will be held both Saturdays and Sundays starting at 9 a.m., at Gleason Point, Mission Bay. All interested Convair SD folk are invited to attend.

First tourney scheduled is a closed slalom meet matching the Convair skiers and the Carlsbad Boat and Ski Club April 9 at Carlsbad. A return tourney is slated between Convair SD and Carlsbad on Sept. 18. Both of these events will be for club members only.

SD members will also compete in four Water Ski Association meets to be held at the San Diego Speedboat Club. Dates for the summer tourneys are May 1, June 11-12, July 17, and Sept. 25. Entry blanks for the meets can be obtained at the Speedboat Club.

For additional information contact Herb Wexler, competition committee chairman, HU-8-4139 or ext. 2418, Plant 1.



IN HARMONY—Eight Convair SD and Astro women and wives are members of local chorus of Sweet Adelines, national barbershop harmony women's organization. They sing one octave higher than men, but are similarly split into bass, baritone, soprano and tenor. Their director is Jim Rogers of SD.

SD, Astro Gals Sweet Adelines; Barbershop Harmony Is Specialty

Glamour girls and grandmas, San Diego chapter members of the Sweet Adelines are proving they can harmonize "Down by the Old Mill Stream" with as fine a blending of voices as any men's chorus.

Eight Convair SD and Astro women are members of the local group. Their director is Jim Rogers (San Diego Dept. 8) who also directs the Astronautics CRA choral group. Sweet Adelines is a national barbershop harmony women's organization.

Members of the SD group have one thing in common: "a keen enjoyment in singing." Age is no barrier and few have had voice training. As one member puts it, "The only requirement is a desire to sing louder than a shower."

The Sweet Adelines are not incorporated with the Society for the Preservation and Encouragement of Barber Shop Quartet Singing in America. SPEBSQSA approval, however, is required for songs the women present at their national competition.

On April 2 the SD group will journey to Pasadena to take part in the Southwestern Region Annual Chorus Competition.

Although the annual songfest is the year's highlight, the SD Sweet Adelines get in plenty of playing dates, appearing during the year at luncheons, benefits for the sick, blind and aged.

Practices are held three or four Wednesdays each month at 8 p.m. in the Friendship Room of the Home Federal Savings and Loan Building in Pacific Beach.

Total chorus membership is about 20 voices. Convair SD members are Betty Phillips (Dept. 197), Marie Daigneault (Dept. 98-6), Betty Klick (Dept. 6), Caroline Lyons (wife of Paul Lyons, Dept. 15), Dorothy Rogers (wife of Jim Rogers), and Pauline Beadle (wife of William Beadle, Dept. 15). From Astro are Florine Bruce (wife of Robert Bruce, Dept. 402), and Connie Kreber (Dept. 337).

The local Sweet Adelines group has a theme song. But it's not "Sweet Adeline." It's "Harmonize the World." Most listeners agree that they live up to their theme.



SKI BREAK—Members of Convair SD Snow Ski Club arranged vacations together this month, spent week at Sun Valley, Idaho. Here they pause for photo near Round House, halfway up Mt. Baldy. From left top row: Joe Ottoman, Martha Woodberry, Chuck Taylor, Doris Taylor; from left bottom row: Joan Brennan, Joe Harris, Jack McFarland and Chuck Snyder.

Discount Arranged For Dances, Shows In Caribbean Room

Special discount exchange tickets entitling Convair SD folk to half-price admision at four Saturday evening dances in the El Cortez Caribbean Room will be distributed free starting April 4 at employee services, Plants 1 and 2.

Sponsored by the Industrial Recreation Council of San Diego the dances will be held April 16, June 18, July 16, and Aug. 13.

"Tiny" Markle's 16-piece band will provide music between 9 p.m. and 1 a.m. and local record jockey, John Gentri, will emcee a special hour-long cultural program between 10 and 11 p.m. at each dance.

On April 16 the show will feature the Carlene Farrar Models in a fashion show; on June 18 a musicale will star Sam Hinton, folk singer, Bob Barnes, jazz flutist, and Hank Kolar, classical violinist; the Arthur Murray dancers will give an exhibition July 16; a jazz anthology and modern art showing is slated for Aug. 13.

The discount exchange tickets will be available starting April 4 at employee services until the supply runs out. Under the exchange arrangement SD folk can attend one dance ($3 value) for $1.50 per couple, or a four-event ticket ($12 value) can be obtained for $5 per couple. Couples must be over 21 years of age.

Boron Destination For SD Rockhounds

Rockhounds at Convair SD will trek to Boron April 9-10 for their next field trip, according to Danny Whorton, commissioner.

Also invited to participate in the field trip are rockhounds from Convair Pomona. Highway streamers and markers will be placed along the route to guide travelers. Maps can be obtained by contacting Whorton, ext. 426, Plant 1.

Thirty-one club members attended a trip earlier this month to Rainbow Ridge and Sheep Springs, finding specimens of rainbow agate, jasper and petrified palm.

Guests Win Honors At ATA Trap Shoot Held by CRA Club

Another near-record entry field vied for honors at a CRA Gun Club-sponsored registered trap shoot March 20 at Gillespie Field, Jack Swank, SD commissioner, reported.

Sixty-three shooters competed for singles honors, 53 entered the handicap event, and 28 signed up for the doubles competition.

A full one-third of the shooters were from out of town at the ATA trap shoot which gives participants the opportunity to record targets under auspices of the American Trapshooting Association.

For the most part, Convair SD and Astro marksmen took a back seat, as guests walked off with the top honors.

In the 16-yd. singles competition, winners were Wayne Brown, Class A; Ralph Samaha, Class B; Herbert Langfeldt, Class C; and Jack English, Class D. Handicap winners were Herbert Langfeldt, high gun; Midge Higgenbotham, high woman; and Tipp Simpson, high junior. Doubles honors in Class A went to J. O. Chilton and Joe Berg placed first in Class B.

SD, ASTRO MERGE ICE SKATE NIGHT

CRA ice skating activities for both Convair SD and Astro enthusiasts starting April 7 will be held only on Thursday evenings at Iceland, 6055 Lake Murray Blvd., E. H. "Bud" Davies, Astro commissioner, and Martha Woodberry, SD commissioner, have announced.

Separate sessions will no longer be held for the Astro-Blades and the SD Ice Skating Club. The merger will allow additional time for free instruction classes and permit separate classes for beginning, intermediate and advanced skaters.

Special discount rates will apply to all Convair folk on Thursday evenings between 6:30 and 7:45 p.m. Free lessons will now be offered between 6:30 and 7:15 p.m. The following half hour special skate sessions will be held for couples only, men only, etc. Convair skaters can continue until 10 p.m. without additional charge.

Singing Hills Site For Archery Shoot

Astro archers are invited to participate at a Convair SD Archery Club shoot Sunday (April 10) at the Singing Hills Archery Range, Al Phipps, club president, reports.

Bowmen will register between 9 and 9:45 a.m. and shooting will start at 10 a.m. at the range located across the road from the Singing Hills Golf Course.

The shoot will be a special "old timers" event and all former club members are invited to attend. They will compete for special awards. Events will include a field round, some novelty targets and a flight shoot. Further information can be obtained by calling Phipps, CY-5-8194.

Phipps (Dept. 401) heads a slate of club officers elected at a meeting this month. Others are Tom Boling (Dept. 192), vice president and publicity director; Pauline Phipps (wife of Al Phipps), secretary and treasurer; Robert English (Rose Canyon), field captain; and Wally Butts (Dept. 31), range captain.

'Quails' Will 'Walk' At Shoot on Sunday

Gift certificates will be awarded the high gun in each squad at a "Quail Walk" shotgun shoot this Sunday (April 3) at the CRA Gun Club Range, Gillespie Field, El Cajon.

The shoot will get under way at 9 a.m. The "Quail Walk" is so named because it is an attempt to simulate actual quail hunting as closely as possible. All interested Convair SD and Astro gun enthusiasts are invited.





END OF SEASON—Shop league basketball at Convair SD drew to close late last week, with only playoff game for championship remaining. Center shot is typical of action during past weeks. Contesting for ball are players from Dept. 280 Mockup and Dept. 6 Electrical. At left is first round winner, Dept. 6 Electrical. Members are (top row, from left): Bill Whalen, coach and manager, Del Henninger, Chuck Warner, and Herb Griener; (bottom row, from left): George Hafford, Don Martin, John Woodworth, Jim Reichert. At right is Jet 880 team, contender for second-round honors (top row, from left): Herman Wright, Wes Oswald, Bill Holcomb, Jim Rivers; (bottom row, from left): Eldridge Cook, T. C. Johnson, W. L. Holmes and Bob Samano, coach and manager.

Convair Crowns Two City Hoop League Winners

Two Convair SD hoop teams won city league championships during the past two weeks and shop league play went into a series of playoff games to decide the plant champion.

Tool Manufacturing won the City Industrial A League championship the hard way. They beat Ryan in a playoff game after the tilt was officially over!

Regulation time had run out with Tool Manufacturing on the losing end of a 56-55 score. But in the last second, SD's Dee Trepanier was fouled attempting a layup. Trepanier dropped both free throws, giving Tool Manufacturing the title, 57-56.

Convair SD Girls' Team swept the City Women's League championship in similar spectacular fashion.

With three seconds left to play in their last league game, the SD girls tied the score at 61-all. They outshot T.O.T.s in the overtime period to pocket a 66-63 victory.

The victory gave Convair an unblemished league record of eight wins. It also gave the gals their first league championship, in addition to their preseason tourney championship.

Shop teams finished league play last week with a series of playoff games in store to decide the plant champion.

880 Jets and Dept. 6 Physics won their final league games, thus ending in a tie for the second-round title. Winner of the playoff game will meet Dept. 6 Electrical, first round winner, to decide the plant champion.

In games last Wednesday, Physics slipped by Service Parts, 42-38, and 880 Jets were awarded a forfeit win over Dept. 280 Mockup. Service Parts and Dept. 6 Electrical tied for third place in the second round with identical 3-2 records.

SD Wrestlers Snag Honors in Matches

Convair SD wrestlers won honors in two AAU-sponsored meets in San Diego during the past month, according to Pete Beyrer, commissioner.

Leading the SD grappling team was Mike Rubottom (son of Herb Rubottom, Dept. 3) who placed first in the 160-lb. weight class in meets at San Diego High School and San Diego State College.

Second-place finishers in the meets included Randy Veal (son of Paul Veal, Dept. 3), 136-lb. class; Ash Bishop Jr. (son of Ash Bishop, Dept. 401), 191-lb. class; Ray Yale (son of M. R. Yale, Dept. 6), 147-lb. class; and Sam Longoria (Dept. 146), 114-lb. class.

Regular workouts for the SD wrestlers are being held Thursday evenings, starting at 8:30 p.m., in the CRA Clubhouse, Pacific Hwy.

CRA Sports & Recreation Convairiety

Roses Top Attraction For Garden Club Show

Hundreds of roses will be judged in 28 classes when Convair SD Garden Club stages its annual Rose Show Sunday (April 10) in the Floral Association Building, Balboa Park.

The Rose Show is the largest CRA exhibitors' event sponsored during the year by the Garden Club. The public will be able to view the blooms between 1 and 5:30 p.m. No admission is charged.

Growers can obtain entry lists now at employee services, both plants. All roses entered must have been grown by exhibitors. Entries will be accepted the morning of the show at the Floral Bldg. between 8 and 11 a.m. Judging will follow until 1 p.m.

In addition to roses, other show divisions include arrangements, corsages, children's classes, and best of show, according to E. L. Zimmerman, commissioner.

Handling arrangements for the show are Zimmerman; Everett Henderson, club president; and Ann Freedman, secretary.

This weekend (April 2-3) many club members are expected to enter blooms in the San Diego County Orchid Show in the Balboa Park Conference Bldg.

Tickets for this event are being handled at employee services, both plants. They are priced at 75¢, compared to a regular admission charge of $1. The orchids can be viewed on Saturday, from 1:30 to 9 p.m.; and on Sunday between 9 a.m. and 6 p.m.

LAS VEGAS TOUR OFFERED BY CRA

Trips to Las Vegas are in the offing for Convair San Diego people at special rates through CRA arrangements.

First tour, limited to 36 persons, will be over the weekend of April 22-24. Price of round-trip transportation by bus and two nights at the Stardust Hotel in Las Vegas is $20 each.

Passengers will board the air-conditioned Greyhound bus at the Bldg. 19 executive parking lot at 5:15 p.m. on Friday evening and return to San Diego about 8 p.m. on Sunday. Private cars may be parked in the lot during the weekend.

Reservations now are being taken on a first-come, first-served basis at SD employee services, both plants. Entire cost of the trip must be paid at the time reservations are made.

Cut Price Offered For Padre Baseball

Special discount tickets for all San Diego Padre home games played on Wednesdays will be available at Convair SD employee services, Plants 1 and 2, starting on the Monday preceding the Wednesday playing date.

When presented at the Padre box office SD baseball lovers can obtain a box seat ($2 value) for $1.25 or a general admission seat ($1.25 value) for 50 cents.

The first Padre Wednesday home game is scheduled April 20. Discount tickets will be available at employee services starting Monday (April 18). Other Wednesday home games are slated for April 27, May 18, June 1, June 8, and June 15.

The special rates are being offered through arrangements of the San Diego Industrial Recreation Council. Convair SD is a council member.

Hoedowners Slate New Class in April For SD Beginners

A new square dance class for beginners will start on Monday (April 25) in the American Legion Hall, 4062 Fairmount Ave.

All Convair SD persons are invited to enter the class which is sponsored by the CRA Hoedowners. Only two such classes are conducted each year, one starting in spring and the other in fall.

According to P. E. Liggett, CRA co-commissioner, registration can be made at the first class on April 25, starting at 8 p.m.

Liggett also announced that an all-Convair square dance will be held in conjunction with the April 23 party night at the University Heights Community Center, 4044 Idaho St. The Hoedowners will host the dance which starts at 8 p.m. Invitations have been extended to square dance groups at Convair Antelope Valley, Pomona, and Astronautics.

Deadline Next Week For Dept. 3 Golfers

A special tourney for SD Dept. 3 golfers is slated for April 30 starting at 9 a.m. over the short course at Singing Hills.

Prizes will be awarded for men's low gross and women's low gross, in addition to blind bogey. A $1 entry fee will be required. To register, industrial relations golfers should call ext. 1705, Plant 1, before next Wednesday (April 6).

11 Keg Leagues Planned For SD Summer Activity

Convair SD bowlers will have their choice of at least 11 leagues scheduled to roll during the summer, Mike Brooks and Jim Hayman, co-commissioners, report.

Keglers are urged to make their reservations as soon as possible with the proper league captains.

Monday 6:30 p.m. leagues and captains are: Engineering Flight Test League, Bowlero, Mission Valley, Tony Zullo, ext. 1205, Plant 1; Mixed Handicap (700) League, Bowlero, Lemon Grove, Mike Brooks, ext. 583, Plant 2; Mixed Handicap League, Clairemont Bowl, Dick Hanson, ext. 1437, Plant 1.

Tuesday, 6:30 p.m.: Fabrication League, Bowlero, Mission Valley, Bob Heath, ext. 1203, Plant 1.

Tuesday, 4:30 p.m.: Mixed Trio League, Pacific Recreation, Jim Hayman, ext. 1155, Plant 1.

Wednesday, 6:30 p.m.: 760 Mixed Scratch League, Pacific Recreation, Hayman, ext. 1155, Plant 1; 700 Mixed Handicap League, Pacific Recreation, Hayman.

Thursday, 6:30 p.m.: 725 Mixed Handicap League, Pacific Recreation, Hayman; Engineering Mixed League, Victory Lanes, Frank Kelley, ext. 2660, Plant 1.

Friday, 6:30 p.m.: Mixed Handicap League, Tower Bowl, Mike Brooks, ext. 583, Plant 2.

Friday, 9 p.m.: Mixed Handicap League, Bowlero, Mission Valley, Hayman.

CRA Calendar

(Convair SD Recreation Association has some 40 activities in operation. For information on SD sports, call CRA headquarters, ext. 1245, Plant 1.)

★ ★ ★

ARCHERY CLUB — Special "old timers" shoot Sunday (April 10), registration 9 to 9:45 a.m., at Singing Hills Archery Range.

BADMINTON — Open play for families Tuesday evenings at 7:30 in Balboa Park Federal Bldg.

BOWLING—Registration now open for summer league activity.

FENCING—Workouts and classes every Friday, 7 p.m., downtown YMCA, 8th and C.

FISHING CLUB—Meeting Tuesday (April 19), 7:30 p.m., CRA Clubhouse, Gillespie Field.

GARDEN CLUB—Annual CRA Rose Show April 10, Floral Assoc. Bldg., Balboa Park. Doors open to public from 1 to 5:30 p.m., free admission.

GUN CLUB—"Quail Walk" shotgun shoot, 9 a.m., Gillespie Field Range, Sunday (April 3).

ICE SKATING—Convair night every Thursday; discount rates between 6:30 and 8 p.m. at Iceland, 6055 Lake Murray Blvd.

JEEP CLUB — Cross-country trip April 2-3. Leave Hemet Saturday at 8 a.m.

JUDO—Workouts and instruction Thursdays, 7 p.m., CRA Clubhouse, Pacific Hwy.

MOVIES—Reduced-price movies each Tuesday night at Academy Theater, 3271 University Ave. Adults, 25¢; children, 15¢.

PISTOL CLUB—Next shoot Sunday (April 10), 9 a.m., San Diego Police Pistol Range, Federal Blvd. and Home Ave.

RADIO CLUB—Registrations accepted for new code and theory class at meeting tomorrow (March 31), 7:30 p.m., Harbor Drive headquarters.

SOFTBALL — Organizational meeting for shop league teams tomorrow (March 31), 5 p.m., CRA Clubhouse, Pacific Hwy. First workout for Eagles Monday (April 4), 7 p.m., Golden Hill playground.

SPORTS CAR CLUB — Meeting Wednesday (April 6), 7:30 p.m., Natural History Museum, Balboa Park.

SQUARE DANCING — Hoedowners invited to attend dance April 9 in Palmdale, sponsored by Convair Antelope Valley Joshua Jumpers.

SWIMMING — Free family swim night Saturday (April 2), 7-9:30 p.m., at Mission Beach Plunge. Tickets at employee services and from CRA department representatives.

WATER SKI CLUB — Practices Saturdays and Sundays, Gleason Point, Mission Bay, 9 a.m. Closed slalom meet in Carlsbad April 9.

First Softball Meetings Set For SD Teams

Softball springs back into the CRA sports spotlight this week and next as both city and shop league teams organize for the new season.

The Convair SD Eagles, who will be entered in the San Diego AAA Softball League, will work out for the first time on Monday (April 4) at 7 p.m. at Golden Hill Playground.

Gil Crosthwaite, softball commissioner, invited any players with either local or out-of-state city league experience to try out for the team.

The Eagles will be entered in two preseason tournaments. On April 11 they will compete in the Amateur Softball Association Tourney at Helix High School Field in La Mesa. Starting May 2 they will play in the annual preseason City Tourney held at various San Diego playgrounds.

Shop league softball activity gets going tomorrow (March 31) when an organizational meeting will be held at 5 p.m. in the CRA Clubhouse on Pacific Hwy.

All departments planning to enter teams in the league are asked to send representatives to the meeting. Schedules, equipment and eligibility requirements will be among subjects discussed.

Paints and Finishes For 880s, 600s Tried Out in All Kinds of 'Weather'

Paints and finishes protecting and decorating Convair 880s and 600s are being tried out in all sorts of temperature and humidity conditions in Convair San Diego's new environmental spray booth in the SD materials and processes laboratories.

Within the new facility, one of the few installed by an industrial firm, temperatures from 40 to about 100 degrees Fahrenheit and humidities from 20 to 90 per cent can be duplicated.

By spraying materials with different kinds of paints and finishes in various atmospheric conditions, it is possible to establish when they should, or should not, be applied, depending upon weather.

"Finishes often will not adhere properly to surfaces, or lacquers, for instance, will have a cloudy appearance, if they are put on during cold and humid conditions," explained J. C. George of the paint, finishes, and corrosion laboratories at SD.

"With our temperature and humidity control room we now can duplicate conditions within the plant and tell exactly when different finishes can be applied for best results."

Specialists in the SD laboratories test batches of paint and finishes received within the plant for water resistance, Skydrol resistance, drying time, gloss, and application properties.

Months of exposure can be simulated within a few days by different types of equipment in the materials and processes laboratories located in the northwest corner of Bldg. 5's ground floor. Besides the new 10x10-foot enclosed environmental spray booth, laboratory facilities include two large salt spray cabinets. In these, samples of paint and other finishes are sprayed with a salt solution to see just how much resistance they offer to corrosion. Samples are hung in humidity cabinets where six inches of heated water is agitated with air to create humid, steamy conditions. Ultraviolet and infrared rays in a weather-ometer punish the painted surfaces like the most intense sunlight, and water sprays like rain through a tropical sun, doing its best to fade colors.

The bright Kelly green much in evidence on Convair 880s rolling off the production line was chosen by a process of elimination in the paint laboratories in conjunction with manufacturing development, admitted George. (The green coating is for protection only and is removed before planes receive their final paint jobs.)

The finish itself is a corrosion-resistant acrylic to protect exposed surfaces of Convair's transports during production operations. But the gaudy green color was added to distinguish the skins painted with the acrylic from those covered with other finishes for other purposes.

"We had to have a distinguishing color to show that certain parts had been treated with the acrylic," explained George. "In its natural state, the type of acrylic being used is of a yellow shade, which could be confused with primer."

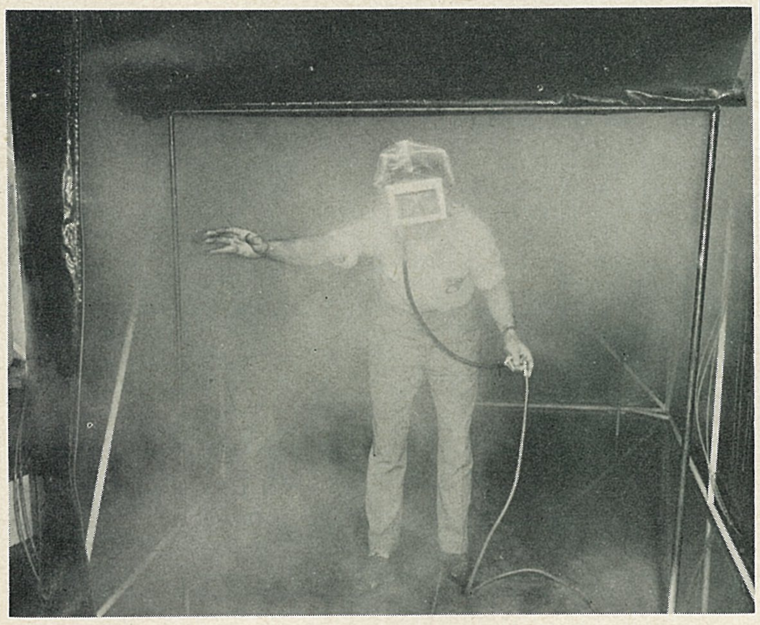
The green acrylic now seen on many unfinished planes is the same type of resin with pigment changes as the familiar gleaming white which decorated the first three completed Convair 880s.

The protective green will cover 1,050 square feet of each 880 and 1,200 square feet of the 600s, the exposed parts of the fuselage and upper and lower surfaces of the wings. Its peculiar properties make it especially resistant to scratches and corrosion; allow it to be drilled through or riveted easily; and protect the outer skins throughout the entire assembly procedure. It can be easily removed by common commercial solvents.

Other finishes used on Convair's jet transports, lacquers used in the interior of the planes, enamels, sealants, epoxies, Scotchweld primer, and different types of cleaning solvents for painted and unpainted surfaces have been checked out in the laboratories. Recommendations are made to SD design groups and to airline customers for the best type for the purpose.

Pomona Son Wins History Contest

J. Wilfred "Bill" Sheehan, son of Convair Pomona's John W. Sheehan (Dept. 4), was announced winner of the junior award in the United States World History Contest sponsored recently by the U.S. Naval Academy at Annapolis.



STEAM BATH—R. G. Wingfield, SD dynamics lab engineer, appears like a man from outer space in his plastic hood as he emerges from large salt spray booth at Convair SD.

Ground Support Equipment Gets 'Salt Spray' Treatment at SD

Ground support equipment for Convair planes soon will be going into a large "salt spray" booth just erected in Convair SD dynamics laboratories to see how well they will withstand corrosion.

The new test facility, set up in Bldg. 72 at Plant 1, is currently the largest and most complete of its kind available within the company. (Convair Astronautics is in the process of constructing a facility of slightly larger capacity.)

The booth, 12 feet long, 7½ feet wide, and 8 feet high, is of black polyethylene with a painted aluminum floor. A 20 per cent salt solution, twice as salty as would be found in any coastal atmosphere, is sprayed into the booth together with heated air to achieve high humidity. A battery of thermostatically-controlled heat lamps on each side of the booth raises the temperature to 95 degrees F. within the chamber. Each bank of lamps totals 16,000 watts.

Plane components, antennas, electronic control boxes, ejection seats will be some of the equipment submerged in the dense salt spray. First tets will be run on a fuel system check test cart for the F-106A/B.

Each item will be placed in the spray for 50 hours, approximating several years of exposure to the most severe weather. When tests start, explain dynamics lab engineers, they will continue around the clock, day and night. Fifty gallons of the salt solution will be used in every 24-hour period.

Following exposure in the steamy booth, all equipment will be checked to see if it functions properly. For instance, tubing, mechanisms, gauges and regulators of the F-106 fuel system check test cart will be put through exhaustive tests to tell just how much effect long exposure might have on their operation. Each F-106 squadron will be supplied with one of the test carts for check-out of fuel systems of the Convair-built interceptors.

Designed by dynamics laboratories engineers, the salt spray booth is one of the facilities under supervision of M. C. Brady, chief of SD dynamics laboratories. In direct charge of its installation and operation is R. G. Wingfield of utility controls group, with G. A. Vasick, supervisor.

Hustler Refuels Two Times During Endurance Record

B-58 No. 12—"Mary Ann"—made a routine flight of 18 hours and 10 minutes this month to set a new Hustler "endurance record."

Piloted by Lt. Col. Leonard M. Legge, the B-58 took off from Carswell AFB at 6:48 p.m. March 22 and landed on the same strip at 12:59 p.m. March 23—a flight of 18 hours and 10 minutes at "cruise speed."

"Mary Ann" was refueled twice during the flight.

The flight was part of accelerated service tests being conducted by the B-58 Test Force at Carswell on the new tactical J79-5A engines. It was the sixth flight in 15 days of testing, during which Hustlers logged a total of 67 hours and 15 minutes.

Rounding out the SAC crew on the flight were Capt. Andrew Rose, bomb-nav operator, and Capt. Ray R. Wagener, DSO operator.

"The flight was routine and without incident," Colonel Legge said.

"We flew roughly in a triangular pattern most of the time—from San Angelo to Albuquerque, N. M., to Dalhart, to Wichita, Kan., to Dallas—at normal cruise speed."

Previous longest single flight for a B-58 Hustler was 13 hours and 10 minutes, also flown by B-58 Test Force personnel.

On hand to greet the crew after the flight were Col. D. M. Jones, director of the B-58 Test Force, and Col. James K. Johnson, 43rd Bomb Wing commander.

European Trip Slated by CRA Starts Oct. 29

Convair SD Recreation Association will sponsor a two-week trip to Europe, via SAS Jet Polar Flight Charter, scheduled to leave Los Angeles for Copenhagen Oct. 29.

The trip is open to all Convair SD persons who qualify for at least a two-week vacation and have department head approval.

With a 120-passenger load, price for the chartered flight will be $311.54, covering costs from LA to Copenhagen, and return from London to LA on Nov. 12.

A variety of tours are offered for the two-week European stay. They vary in price as well as cities visited and time spent in different countries.

For those who wish to cover Europe on their own, car-hire price lists are offered. Prices are also quoted for any travelers who wish to buy a car in Europe and ship it back to the West Coast. For instance, an Austin Healey costs $1,325 and $155 to ship. Volkswagen sells for $1,318, costs $215 to ship.

Detailed brochures containing all pertinent trip information are available at employee services, Plants 1 and 2.

Registrations for the trip must be made before June 1. A $50 deposit is required for the flight reservation. Those signing for one of the 10-day tours must post an additional $50 deposit.

CARROLL TOP SHOT IN PISTOL TOURNEY

J. B. Carroll (Dept. 3-1) took double honors at a Convair SD Pistol Club shoot March 13, placing first in both the .22 Police and the .45 Short National.

Carroll led the master class in the Police event with 293 points, trailed by second-ranked Joe Williamson (Dept. 401-5) with 287. In the Short National Carroll handily outscored the field with 288 points.

Other leading scorers in the Police event were Carl Hornburg (Dept. 139) with 274 points and Ralph Picard (Dept. 7) with 263. They placed first and second in the expert class.

Sharpshooter honors went to H. W. Holmerud (Dept. 3-1) who tallied 277 points and A. B. Carlson (Dept. 68) who scored 264.

VOLLEYBALL TEAMS PRACTICE TONIGHT

All six teams entered in a CRA volleyball league at SD will hold first practice games tonight (March 30) in the Muni Gym, Balboa Park.

Industrial Engineering plays Electrical at 7 p.m., on the South Court; Structures meets Propulsion at 7 on the North Court; Physics plays Dept. 3 at 8.

League play will last 10 weeks with the first-round winner playing the victor of the second round for the plant championship.

League play starts April 6 with Industrial Engineering meeting Propulsion at 7 p.m. on the South Court; Electrical tipping off with Dept. 3 on the North Court at 7; and Structures vs. Physics at 8.

SD Club Schedules Summer Keg League

Entries are now being taken for a Convair SD Management Club mixed foursome summer bowling league which will start rolling April 25 at Bowlero in Mission Valley on Monday evenings at 6:30.

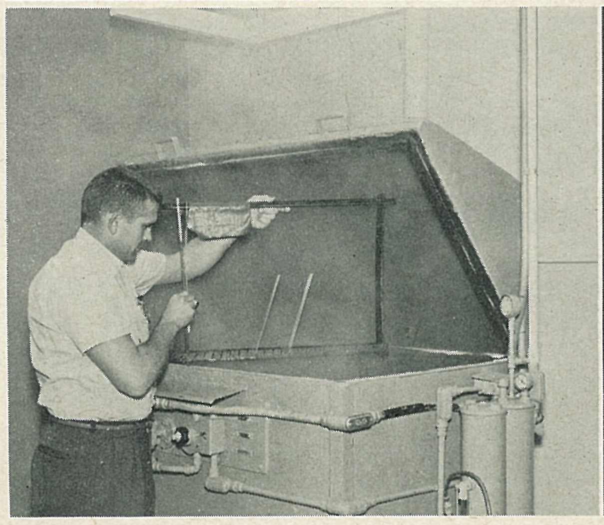
Each team will number two men and two women whose combined average does not exceed 620. Entries are open to Management Club members, wives, and guests.

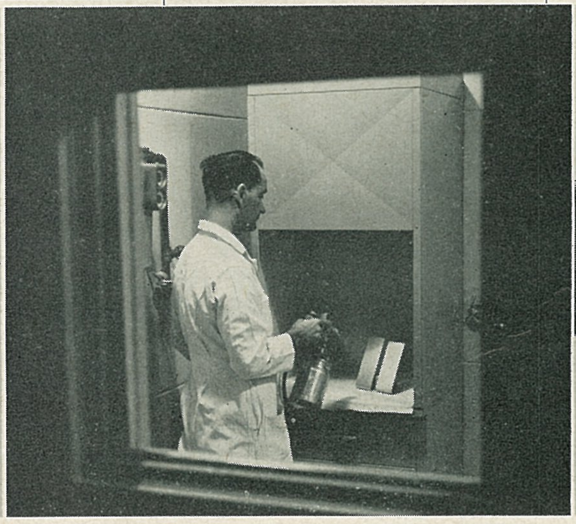
Reservations should be placed as soon as possible with Lee Woll, ext. 211, Plant 2.

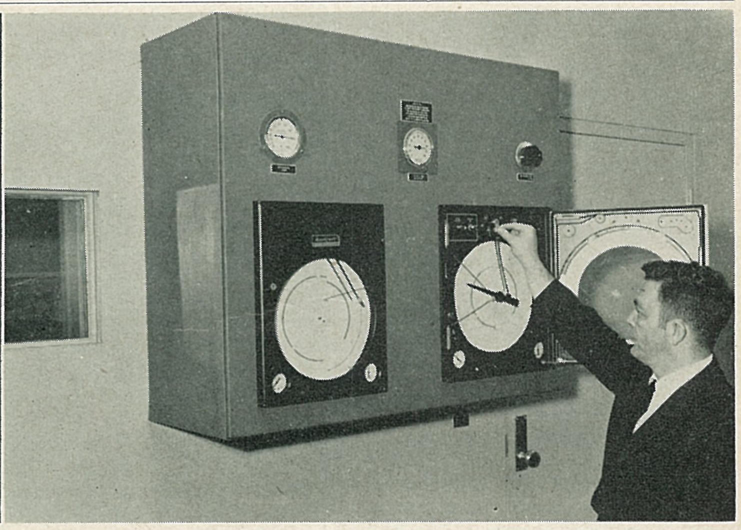
New Cards Issued By SD Riding Club

Membership card renewal time is here for all Convair SD Riding Club members, Marc Beresford, co-commissioner, reminded this week.

All cards issued for 1959 expire on April 15. New cards can now be obtained by contacting Martha Woodberry, ext. 1245, Plant 1. Other Convair SD folk interested in joining the Riding Club are invited to make application at this time.







PAINT PUNISHERS—At left, A. F. Hooper, chemist in Convair SD paint, finishes, and corrosion laboratories, submerges paint samples in salt spray tank. In center, Clifford Fennell, lab technician, is seen through window spraying specimens in new SD temperature and humidity control room while J. C. George sets controls.

C-V CONVAIR

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SAN DIEGO, POMONA, ANTELOPE VALLEY, VANDENBERG AFB, CALIF. AFMTC, CAPE CANAVERAL, FLA., FORT WORTH, TEX.



CHILLY LANDING—Convair 880 plane No. 4 snapped against background of snow-covered Alaskan peaks as it rests on Anchorage airport between recent anti-icing system flights.

Anti-Icing System Works Perfectly On Alaska Flights

"Fully satisfactory as designed" was the verdict on performance of the Convair-developed automatic anti-icing system of the Convair 880 after recent check-out flights.

A tired, rumpled, but jubilant 880 crew brought plane No. 4 back home to San Diego after a 10,000-mile sky search for nasty weather to test the plane's anti-icing system for FAA certification.

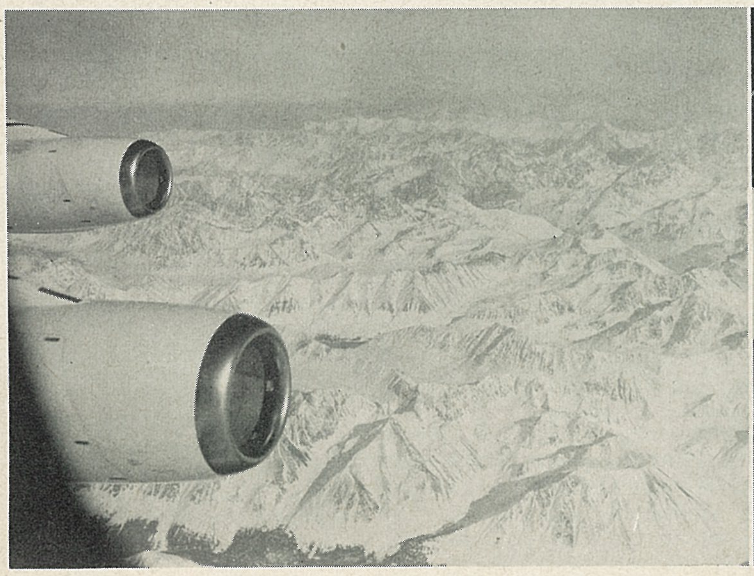
What had been planned as a two or three-day hop to Seattle, Wash., turned into a week of frustrating flights into the far Alaskan northland. Conditions which would trigger the ice sensing probes and put the anti-icing system to work eluded the plane everywhere until the latter part of the week, said R. L. Runnalls, commercial project group engineer, along as technical observer.

Then, luck changed. Friday, on a round-robin flight across south central Alaska, first icing contact was made to actuate the system in its first functional demonstration of controls. And then on Saturday, en route from Anchorage to Seattle, the anti-icing system really got the full treatment. Picking up a weather front moving into the area near Vancouver Island, Pilot W. D. Carrier flew the huge airliner back and forth through the worst of the gathering storm. For over half an hour the 880 traced and retraced its course at low speed of about 230 mph to produce maximum icing.

Every rough test in the book was thrown at the plane. The engine and engine inlet anti-icing system was shut down on No. 4 engine and all tail surfaces to let ice build up. The system proved that it could clear away the ice under severe conditions.

When the plane was pulled out of the cloud formation into clear air and put through stalls with ice on the tail, noticeable effect on its handling was negligible, reported Runnalls.

(Continued on Page 2)





SPECTACULAR—Panorama of Alaskan scenery snapped by SD photographer Ernie Flisrand from window of 880 jetliner as it flies over south central Alaska in search of icing conditions. At right, Mt. Shasta as seen through 880 windshield by FAA pilot Dick Richardson and Convair pilot W. D. Carrier as plane zooms over Northern California on way to northland.

Far Ranging

Crew on Ice Hunt Chilly But Game

How to go to Alaska and back with one spare shirt is the story of the 31 men aboard the Convair 880 on its recent flight to Anchorage.

They had packed lightly for a couple of days to Seattle and back. But the two days stretched to a week as the 880 flew sorties from Portland to Seattle to Anchorage, out over the Pacific, along the Canadian coast, and far into Alaska looking for bad weather.

"A little chilly," was the comment on the 40-degree (high) weather at Anchorage. Overcoats were scarce. But a bout of flu on a flight out of Anchorage with the patient piled high with flight jackets to ward off chills was the only sick bay case.

Field operations mechanics came back to San Diego sporting bright red rabbit-ear caps, their only concession to the Alaskan cold.

Each day's routine saw the travelers gathering early to take

(Continued on Page 2)

BLOOD VOLUNTEERS MOSTLY 'HEALTHY'

A healthy group of volunteers turned out at the March 24 bloodmobile visit to boost Convair San Diego's credit at the San Diego Blook Bank by 111 pints.

Only nine were rejected out of the 120 engineering and experimental people from Plant 1 who reported, although 168 from Bldgs. 5 and 51 had signed up.

"This was the best percentage of acceptances we've ever had at a San Diego bloodmobile," said Ken Wulfemeyer of employee services. "The number of actual donors is usually cut to about half of those signing."

Convair SD now has a reserve at the Blood Bank to carry through a couple of months, said Wulfemeyer, with the next bloodmobile to be scheduled in May.

Jack Swank CRA Prexy, Succeeds Danny Whorton

Jack Swank as president heads a new slate of officers elected and installed last week for the 1960-61 term by members of the Convair SD Recreation Association Employees' Council.

Council members also elected two women as officers for the first time in the CRA's 11-year history. Martha Woodberry assumed duties of the vice presidency and Grayce Fath, re-elected by acclamation, started her 12th year as secretary.

Rounding out the officer slate is Ken Wulfemeyer, treasurer, who was also elected by acclamation. He will be serving his second consecutive term.

Swank (Dept. 3-8), a charter member of the CRA Gun Club, replaces Danny Whorton as president. He has been active in recreational activities at SD for 15 years, playing softball, golf, baseball and participating in various hunting and fishing activities.

As Gun Club commissioner for the past three years, Swank has been instrumental in developing the Gillespie Field skeet, trap and rifle ranges, which are recognized as some of the finest installations of their kind in the county.

Martha Woodberry, first woman ever to be elected CRA vice president, has been with Convair SD since 1951 and is presently commissioner of four CRA clubs, Ice Skating, Ballroom Dancing, Choralaires and Women's Activities. She has helped arrange charm school courses, fashion shows and other special events for women.

In addition she is one of the founders of the Delta Toastmistress Club for Convair women and is also hospitality chairwoman for Toastmistress Council 7. She was graduated from Sweetwater High School and attended San Diego State College before joining Convair in Dept. 3.

Wulfemeyer, one of first treasurers to be re-elected by acclamation, has handled golf activities at Convair SD since June of 1958.

He was active in baseball and basketball in his high school and college days, served eight years in the Navy before joining Convair in industrial relations in 1956.

Grayce Fath, who was again elected secretary by acclamation, was praised by J. K. Field, SD employee services chief, for the manner in which she has handled her duties as Council secretary for 11 years — a service total which is a record in itself.

Mrs. Fath joined the company in the industrial relations department in San Diego operating division in 1936, moved over to General Office industrial relations in 1943, later became the first "staff" of **Convairiety** when the company paper was established in 1948. She continues to hold a key position in Dept. 1-32.

LANPHIER TO TALK AT CLUB MEETING

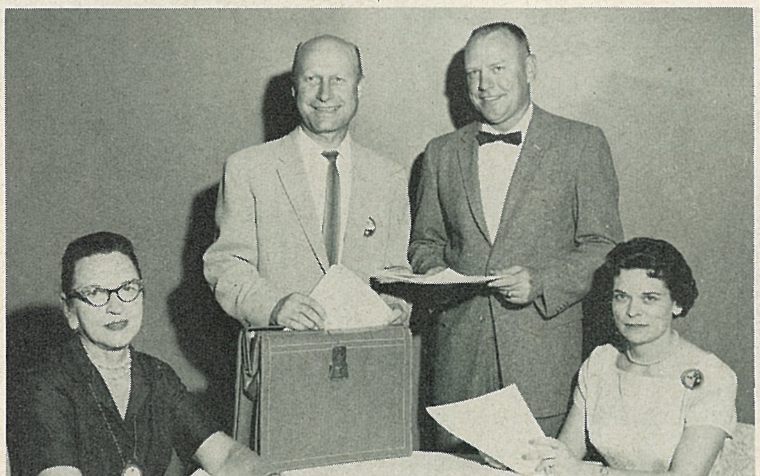
Thomas G. Lanphier Jr. will be main speaker and members will nominate officers at the April 21 meeting of the Convair SD Management Club in the Palm Room of the U.S. Grant Hotel.

(Club members will note that the meeting is on a Thursday evening, not Wednesday, as is customary.)

Lanphier, who recently resigned as Convair vice president and assistant to the president, is expected to discuss the current national defense picture.

Sponsored by engineering department, the meeting starts with social hour at 5:30, followed by dinner at 6:30. Tickets, priced at $2.25 each, are on sale at the usual department outlets.

W. W. Fox is general chairman of the meeting committee which is composed of Morris Tombler, Bill Schurr, Doug Platt, K. G. Blair, and Tom Billings.



RECREATION LEADERS—Council members elected and installed new Convair SD Recreation Association officers at meeting last week. From left are: Grayce Fath, secretary; Jack Swank, president; Ken Wulfemeyer, treasurer; and Martha Woodberry, vice president.

70 Officials Briefed, See Sleek F-106s

About 70 civic leaders and Air Force officials from areas that will be seeing Convair interceptors in the near future have been at Convair San Diego during the last three weeks to get acquainted with them.

Groups from Indiana, North Dakota, and Washington spent two days each at San Diego as part of an orientation program sponsored jointly by the Air Defense Command and Convair. Purpose of the tours is to acquaint civilians, through their civic leaders, with the F-106 and F-102, their construction, capabilities, and defense mission.

Convair men hosting and briefing the groups were B. F. Coggan, Convair vice president and SD manager; T. J. Sullivan, SD assistant manager-contracts, customer service, and material; R. L. Johnson and R. M. MacIver of SD military requirements.

First group was from Peru, Kokomo, and Logansport, Ind., and AF officers from Bunker Hill AFB where the 319th Fighter-Interceptor Squadron is transitioning to F-106s.

Last week's visitors were from Minot and Glenburn, N. D. The 32nd Fighter Group at Minot AFB received F-106s in February. Now at the SD plant are people from Everett, Wash., where the 321st FIS at Paine AFB is being converted to F-102s.



BIG OCCASION—Winners of Convair SD sons scholarships, and parents, were honor guests at luncheon hosted last week by B. F. Coggan, SD manager. Clockwise, from bottom, are Mr. and Mrs. William Timm; their son Neil; H. C. Matteson; H. W. Rubottom, SD chief educational services; Mrs. Matteson; son James; Coggan; and R. P. White, SD assistant chief engineer-product design.

Two Outstanding Convair Sons Chosen Scholarship Winners

Neil Hartley Timm and James Leland Matteson will receive their college educations by courtesy of Convair San Diego as winners of the 1960 sons scholarships.

The two 17-year-old Convair sons were selected from a field of 24, one of the largest groups ever to apply. They join 11 other Convair SD sons who are now working toward their bachelor of science degrees as scholarship winners.

Neil is the son of William L. Timm, SD industrial engineer, and James, the son of Harry Clair Matteson, aerodynamics engineer at SD for the last 18 years.

Both boys, honor students throughout their high school careers, are members of the California Scholarship Federation. Neil, who will graduate in June from Helix High School, was active in school sports—cross-country track, football, basketball, and wrestling. He is a member of the Letterman's Club and a commissioner of athletics during this school year.

His wide range of outside interests includes coin collecting, painting, gardening, chess, and church work. He intends to major in mathematics at the University of California at Los Angeles.

James Matteson will be a June graduate from Point Loma High School. He also is active in church youth groups and enjoys camping, fishing, and boating as extracurricular activities. He likes to work with his microscope at home.

At present, he plans to enter Occidental College, Los Angeles, this fall to begin working toward a degree in physics or mathematics.

Both winners were selected for their academic achievement, leadership ability and ultimate goals by the committee of B. F. Coggan, SD manager; W. W. Fox, chief engineer; and D. C. Wilkens Jr., manager of industrial relations.

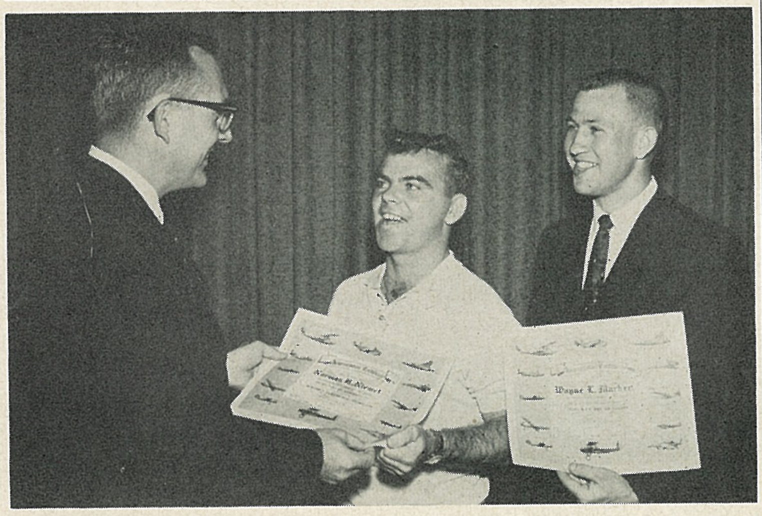
The annual scholarship program is administered by SD educational services under direction of H. W. Rubottom, chief.

Discount Vitamins On Sale, Both Plants

Vitamins may now be purchased at employee services counters at Convair San Diego, both plants, through arrangements with CRA.

As an added convenience to SD people, the $1 size bottles of multi-vitamins, B-complex, high V.C., and children's vitamins are being stocked in the employee services sections, said J. K. Field, chief of SD employee services.

Other outlets for the vitamins, all sold at discount prices to Convair folk, are at checking stands in the plant cafeterias; canteens; Employees' Store across from Plant 1; and in vending machines spotted throughout both plants.



GRADUATES — Now in Convair SD electronics are Norman Niemet and Wayne Marker after receiving journeyman's certificates recently from E. C. Oertel, chief electronics engineer at SD. There are currently 71 in Convair SD's apprenticeship program.

★ Convairiety ★

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Antelope Valley Editorial Office, Room 103, Bldg. 301 B, Palmdale, ext. 337. Staff: Richard L. Millett.

880 Anti-Icing System Passes Severe Tests

(Continued from Page 1)

Main purpose of the 880's task was to show that it could maintain a "holding" position for some time if ever forced to remain in icing conditions. The maneuver could be necessary if any 880 were ordered to circle aloft waiting its turn to land. In ordinary flight, the big jet would be through and away with only limited icing contact.

Before FAA certification, results of the recent flights will be correlated with component tests made during development of the system. The system, itself, was tested a couple of years ago in the icing tunnel maintained by the National Aeronautics and Space Administration at Cleveland, Ohio.

Carrying on with the functional and reliability flight program after its return from Alaska, the Convair jet flew to Miami and back last week, landing at various airports across the country. Up until last Monday (April 4), it had accumulated 89 hours and 40 minutes in the air since the F&R flights began March 17. Three crews were keeping the huge plane aloft on practically a round-the-clock schedule.

Cross-country flights will probably conclude the program, leading to FAA certification for passenger service, next week.

Campster Builders Will Meet Sunday At Gillespie Field

A full-scale organizational meeting for Convair SD and Astro folk interested in building campsters will be held Sunday (April 24) at 1 p.m. in the CRA Clubhouse, Gillespie Field, El Cajon.

Those who have already signed up at employee services for the campster building program this week will receive special invitations to attend the meeting. Other interested Convair SD and Astro folk are also invited.

A drawing to be held in conjunction with the meeting will decide positions on the campster-building list. Also, a campster kit will be put together, thus give those attending a step-by-step demonstration.

R. W. Menzie, SD CRA commissioner, said campster production is expected to start the week after the meeting. He added that the original estimate of $50 for a basic campster still holds true, but costs will vary as to quality of furnishings.

The campsters can be mounted either on pickup trucks or trailer beds, measure 62 inches from floor to overhead, are 78 inches wide and eight feet long.

They are made of plywood, covered over with masonite and fiber glass.

Students to Exhibit Their Craftsmanship

An exhibit of student craftsmanship, sponsored by industrial education associations in San Diego, will be held in the Conference Building, Balboa Park, May 21 and 22.

Entries will include projects designed and constructed in the industrial arts and vocational education shops in junior and senior high schools involving woodworking, electronics, metal working, auto mechanics, etc.

Soviet Technology Professor's Topic

Secor Browne, a professor at M.I.T., will speak on Soviet technology in the field of commercial aviation April 19 before the San Diego Chapter, Society of Automotive Engineers, meeting with the San Diego State College student chapter.

The dinner meeting will start at 7 p.m. at the laboratory auditorium on San Diego State campus.



ALASKAN GREETING—Don Germeraad, Convair SD chief engineering test pilot (third from left) shakes hands with station manager of Northwest Airlines on arrival of Convair 880 plane No. 4 at Anchorage, Alaska. Convair SD travelers from left are R. L. Runnalls, U. S. Johnson, Germeraad, Don Hobart, W. D. Carrier (captain of No. 4), Jess Spencer, Dean Bowden, R. J. Palk.

Far Ranging 880

Crew Chilly But Game as Hunt For Ice Leads Into Far North

(Continued from Page 1)

off for as many as four hours tracking icing weather. Box lunches, sandwiches, and gallons of coffee kept them going.

The striking white and gold jetliner attracted plenty of attention at Portland and Seattle airports and was really in the limelight at Anchorage. Hundreds climbed through the first 880 to land in the northern state, even a Malamute puppy!

Aboard were seven FAA inspectors, (including R. J. Bowers, FAA representative at SD), one General Electric representative, a delegate from Hamilton-Standard Co., division of United Aircraft Corp. which furnishes 880 pressurization and air conditioning units.

Others, all from Convair San Diego, were: Don Germeraad, SD chief engineering test pilot; Bob Runnalls, technical observer; Dean Bowden, Don Hobart, Jess Spencer, adverse weather systems engineers; Steve Barinka, superintendent of field operations, Ray Niski and Forrest Brown and their field operations crewmen, C. E. Deaver, J. J. Grzyb, F. M. Hiben, W. F. Bankston, J. B. Smither, C. E. Anderson; Billy Luffe, instrumentation technician; and Ernie Flisrand, photographer.

Crew was W. D. Carrier, pilot; U. S. Johnson, co-pilot; R. J. Palk, flight test engineer; J. L. Fogleman and C. L. Johnson, flight engineers; W. G. Walker, instrumentation engineer.

There's no doubt about it—880 is the lucky number. At least for Bob Runnalls of Convair SD flight test.

On registering at the Olympic Hotel in Seattle, the desk clerk greeted him with "Eighty-eighty." Runnalls looked up, surprised, and answered, "Yes, I just flew in with the 880."

"Oh," said the clerk, "I meant you have Room 880."

As Runnalls started to turn away, he was told, "By the way, the rate is $8.80!"

SD Movie Section Repeats Win In National Show With Lobber

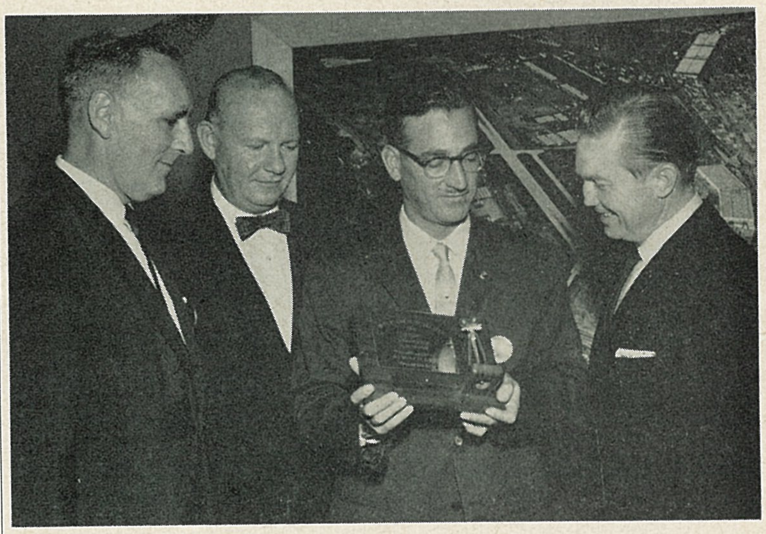
A film produced by Convair SD motion picture section copped one of the top awards in a recent national contest, announced W. G. Kemmer, SD photography supervisor.

"Dynamic Delivery—The Story of the Lobber," won finalist trophy in the sales promotion category at the Industry Film Producers Association competition at Los Angeles. Entered in the contest were 44 films from industrial, educational, and governmental firms and agencies throughout the entire United States.

Produced under supervision of Ralph Hall, the Convair SD entry, a 16 mm. color and sound film, told the story of the newly-developed Army rocket designed to "shoot" supplies to ground troops.

Convair SD crew responsible for the film was: L. L. Hedgecock, director; R. Sperry, writer; W. A. Jenevein, editor; B. Claton and R. Precourt, art directors; R. Reynolds, sound; B. Carter, J. Ayling, D. Berry, D. Kendall, and J. Schalf, cameramen.

Last year the film, "F-102A Turn Around and Reservicing," entered by Convair SD motion picture section, took first award.



FILM AWARD—From left, R. I. Morse, Convair SD manager office services; D. C. Burrows, controller; and (far right) B. F. Coggan, SD manager, admire trophy, held by W. G. Kemmer, photography supervisor, won by SD motion picture entry in national film contest.

When Other Aircraft Fail, F-106B Finds Target, Makes Intercept

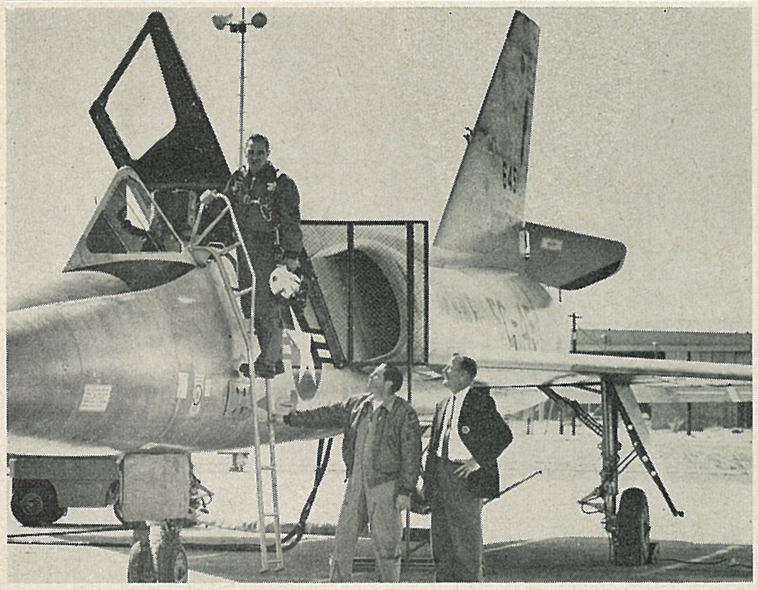
The F-106, Convair-built jet interceptor, has come through again to prove itself at McGuire AFB, N. J.

An F-106B, based with the 539th Fighter-Interceptor Squadron at McGuire, showed that it can intercept a target when other planes have tried and failed.

The Convair plane was put on the job after interceptors scrambled from Suffolk AFB, N. Y., had given up the chase without completing the mission. Capt. R. L. Carson and 1st Lt. L. Wolford were airborne in the F-106B running a functional flight test when they were contacted by the ground control station and sent to the area of the "unknown aircraft" target. As soon as the F-106 passed south of the tower, radar contact was made with the unidentified craft at 1,500 feet altitude and traveling at 220 knots air speed. Captain Carson had good radar contact at 30 miles with a 15-mile lock-on, report Convair SD field service representatives at McGuire.

Radar was used until visual contact was made. The target turned out to be a Navy PV2 taking a short-cut home after completing patrol duty.

"This only proves that our prophecy of the capabilities of the F-106 were not exaggerated," wrote D. L. Perkins and J. Day, Convair SD reps.



LAST FLIGHT—Major F. A. Forsyth of AF flight test at Palmdale and R. E. Myrann, Convair chief test pilot there, say farewell to Lt. Col. Henry Reed of F-106 project office, Wright Patterson AFB, Dayton, as latter prepared to fly No. 451 to Dayton where it entered Air Force Museum.

F-102s on Duty in Philippines With Clark Air Base Squadron

Convair-built fighter-interceptors are now based at another Pacific Area outpost with F-102s going to the 509th Fighter-Interceptor Squadron at Clark Air Base in the Philippines.

Pilots and maintenance crews of the 509th, attached to the 405th Fighter Wing of the 13th Air Force, were given intensive briefing on F-102As before the planes arrived in February. Commanding the squadron is Maj. R. H. Eckert.

Convair SD field service men supporting the F-102s at Clark AB are W. C. Butterfield and J. R. McMann.

Other Far Eastern squadrons now flying Convair jets are the 16th FIS at Okinawa and the 68th FIS stationed at Itazuke Air Base in Japan. Rudy Haas of Convair SD heads the field service team in the Far East.

* * *

P. A. Carlson of Convair SD Model 8 project office was in the Philippines recently as Convair's representative at the U.S.-Asian Fighter Weapons Conference, March 26-April 8.

Co-sponsored by USAF and Philippines AF, "Flying Brothers 1960" saw delegates from Asia, Japan, Korea, Australia, New Zealand viewing non-competitive fighter weapons exercises. F-102As at Clark AB were not scheduled to participate in demonstrations.

F-102s Continue Safety Record

Another F-102-equipped squadron has been commended for its safe flying record during the last year.

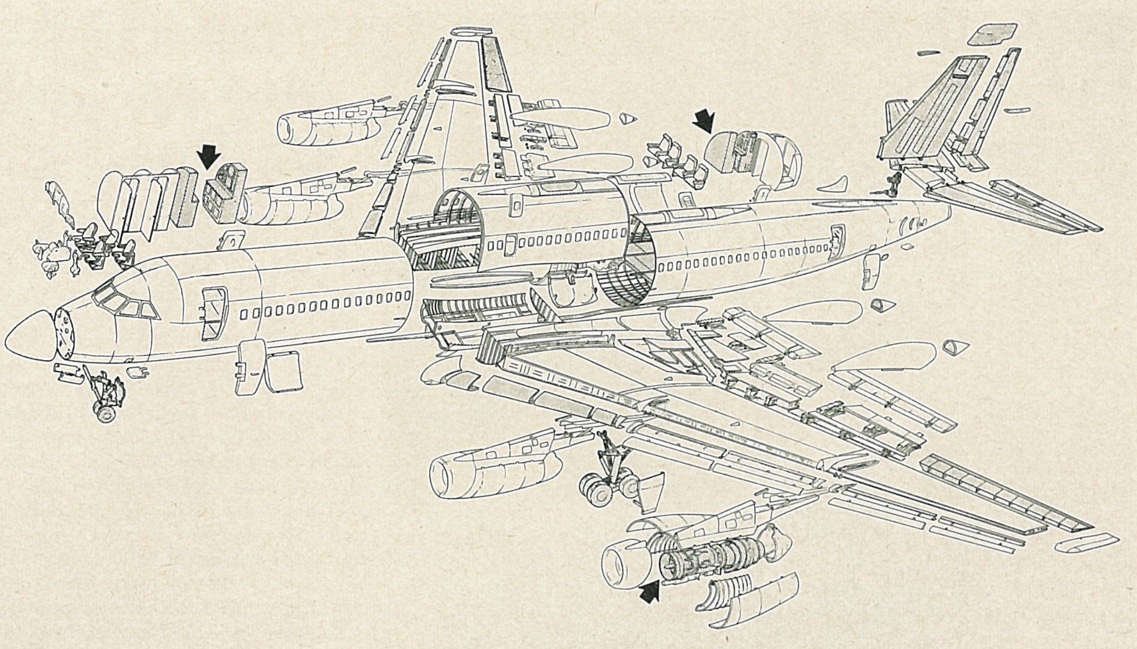
The 64th Fighter-Interceptor Squadron at McChord AFB, Tacoma, Wash., recently received the Western Air Defense Force Flying Safety Plaque for a year of accident-free flying in 1959.

The squadron flew 6,090 hours in F-102As without a mishap. During the more than three years it has operated jet interceptors, the 64th FIS has recorded only one major accident. Commanding officer is Maj. Warney L. Crosby.

Stationed at the Puget Sound base for Convair SD support is H. R. Vinz, field service representative.



" . . . So in the end he found his wallet containing his social security number, his I.D. card, his blood type and his credit card and he lived happily ever after."



EXPLODED—Checks mark items (engines and buffets) which customer will supply in first version of Convair 600; while parts which are being built by subcontractors are shaded. Balance is being built by SD factory.

SD Factory Will Build More Parts For 600s Than It Did For 880s

Production of parts and components that go into Convair's newest jet transport, the 600, will be accomplished, as much as possible, within Convair San Diego plants.

At least two-thirds of parts making up the total material cost of the jet airliner will be produced within the SD factory, according to figures from the office of K. M. Johnson, material estimating supervisor. Percentagewise, over half of the components for the Convair 880 were subcontracted to outside firms. However, wherever economically feasible, explained L. A. Wood, chief of subcontracting, Convair SD is assuming responsibility of production of 600 parts.

Largest task to be drawn into Convair San Diego is the pod and pylon assembly, which is being handled at Rohr Aircraft Corp. for the Convair 880s. A new department (Dept. 140) is now doing production pod and pylon work in Bldg. 4 at Plant 1.

Convair SD will make the honeycomb wing panels, radomes, interior trim items, and small machined parts, many of which had been subcontracted for the 880.

Most of the major subcontracts for the 600 now have been awarded, said Wood. Still to be confirmed is the contract for passenger seats to be made by an outside firm.

Definite subcontracts have gone to Avco Manufacturing Co., Nashville, Tenn., for empennages and wing trailing edges; General Veneer Co., Los Angeles, Calif., for interior flooring and partitions; Hydro-Mill Inc., Los Angeles, flap tracks; Cleveland Pneumatic Co., Cleveland, Ohio, landing gear; Wickland Division of Monogram Precision, Inc., Los Angeles, lavatories.

Wing and fuselage skins for the 600 will be made outside of the plant because of contouring which requires special machinery. Utility Metal Products, Inc., and Altamil Corp., both of Los Angeles, have been given the job of furnishing upper and lower surface wing skins. Fuselage skins will be produced by North American Aviation's Columbus, Ohio, division and Norair Division of Northrop Aviation Corp. at Los Angeles, Chemtronics, Inc., El Cajon, Calif., Wesmont Manufacturers Corp., Burbank Calif. Wesmont also is furnishing electronics racks to contain the radio equipment.

Galleys will be provided by the airline customers and engines will be furnished either by Convair or the customer, depending upon arrangements with each individual airline.

Blair, Cernuto Assigned to SD Electronics

Two special assignments to Convair SD electronics became effective March 21, according to an announcement by B. F. Coggan, Convair vice president and SD manager.

C. F. Blair and V. F. Cernuto have been assigned directly to the electronics manufacturing activity, both reporting to E. W. Carlson, chief of electronics manufacturing.

Blair will be in charge of all manufacturing activity in capacity of acting superintendent and Cernuto will direct manufacturing control as acting chief. Both are now located in temporary offices on Bldg. 4 mezzanine.

"The appointment of Blair and Cernuto to the electronics department is a step forward in implementing the plans for our increasing manufacturing activity," said R. E. Honer, manager of SD electronics.

E. O. Johnson assumes Blair's former responsibilities as superintendent of F-106 fabrication and J. H. Petersen steps into Johnson's post as night manager.

Rose Canyon Wins Magazine's Award

Convair SD's Rose Canyon material handling and storage warehouse has been termed the "Top Western Manufacturing Support Facility of the Year" by editors of Western Material Handling magazine.

B. J. Handwerker (SD Dept. 8) authored an article on the Rose Canyon facility appearing in the magazine's December issue. He accepted the award plaque April 11 at the Fifth Annual Materials Handling and Packaging Conference held at the University of California in Berkeley.

Instrument Society To Hear Astro Man

A. J. Woodington, supervisor of Astro's standards laboratory, will be main speaker at a San Diego section meeting of the Instrument Society of America tomorrow (April 14) in the Lafayette Hotel.

He will discuss "Little Used Capabilities of Standards Laboratories by Industry." The meeting will start at 8 p.m. after social hour and dinner.

SD Mobile Lab Flown to Warren To Assist in Atlas Test Task

An urgent call from Warren AFB, Wyo., sent the mobile laboratory operated by SD dynamics laboratories flying high in an Air Force C-133B recently.

The 22-ft. instrumentation van is on special assignment at the Cheyenne off-site base to assist in instrumentation testing for Astronautics operations there, explained B. J. Campbell, systems dynamics laboratories supervisor.

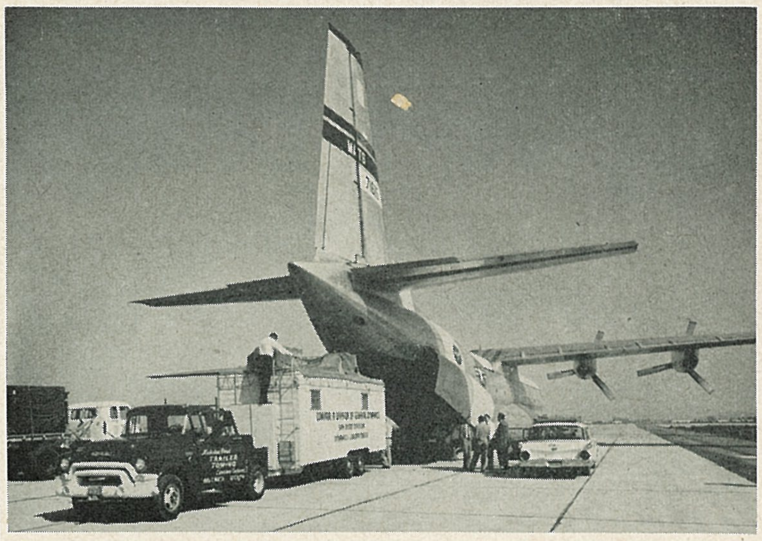
It would have taken at least four days for the van to be hauled by flatbed trailer to the Astro base. By air, it was landed there within a few hours after takeoff from San Diego. It went into use immediately at Warren AFB.

Loading operations at the Miramar Naval Air Station ran into difficulties with the first requisitioned plane, a C-124. The more commodious C-133B, AF transport, was sent from March Field to take over the job.

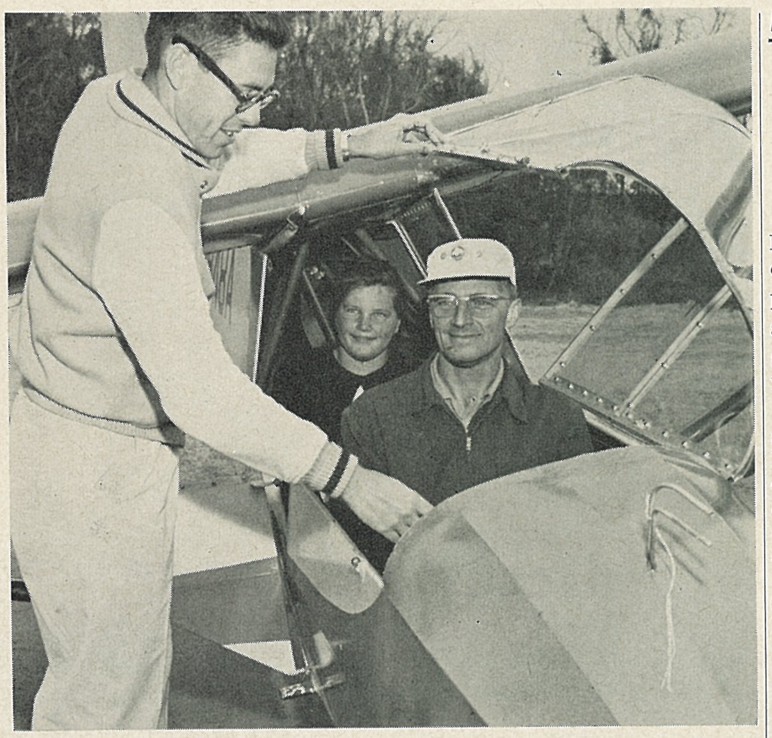
Larry Beck, SD test engineer, flew along with the van. He was met at Cheyenne by other members of the SD support team, Harold Keaton, Jerry Keller, and Don Burnett, research and development technicians, who drove.

Other SD engineers and technicians will go to Warren to assist as needed, explained Eugene Barbic, in charge of SD support.

The mobile laboratory, developed at SD for support of field test activities, houses $200,000 worth of dynamic testing instrumentation and has been used in tests as far away as the Pasadena co-op wind tunnel.



FLYING VAN—An Air Force C-133B transport opens wide to receive Convair SD dynamics laboratories instrumentation van for fast trip to Warren AFB, Wyo.



FLEDGLING FLIER—Doren Curtiss (left) of Astro readies glider as C. F. Stark (Dept. 190) and his 14-year-old daughter, Robin, prepare for flight. Robin last month soloed on her 14th birthday, making her one of youngest pilots in country.

SD Girl, Boys Fill Requirements For Student's, Private Licenses

Convair SD's Glider Club is the training ground for some of the youngest pilots in the country.

Dozens of Convair youths have taken advantage of a "package" program that takes students through ground school instruction, sponsored by CRA Solo Flyers, and the flight program conducted by the Glider Club.

At the present time the CRA club can claim two of the youngest pilots in the country privileged to carry passengers in flight.

They are Roger Williams (son of John Williams, Dept. 7) and Walter Stark (son of Carl Stark, Dept. 190). Both boys are 16 and both passed their flight tests for private glider licenses on March 26.

Possibly even more remarkable is the case of Robin Lee Stark (daughter of Carl Stark).

Robin celebrated her 14th birthday March 20, minimum age for obtaining a student's license as dictated by FAA.

Robin soloed twice the same day, was awarded her student's license, making her, without a doubt, one of the youngest girl glider pilots in the country.

Robin received her backlog of flying knowledge in the Solo Flyer's ground school taught by Rex Robinson (Dept. 6). She then passed her required pre-solo test on Civil Air Regulations.

The young lass has completed 110 glider flights, launched by both winch and airplane tow. No less than four instructors graded her "ready to solo."

Now, the Convair daughter, according to FAA ruling, must wait until her 16th birthday before she can apply for her private license.

"You can rest assured that she'll be one of the first in line when that day arrives," her father asserts.

Robin is the youngest girl to solo in the club, but another Glider Club member's son, Keith Allen, also turned the trick last year on his 14th birthday.

Is It News?
Call Convairiety

Sixth-Graders Produce F-106 Complete to Lights, Drag Chute

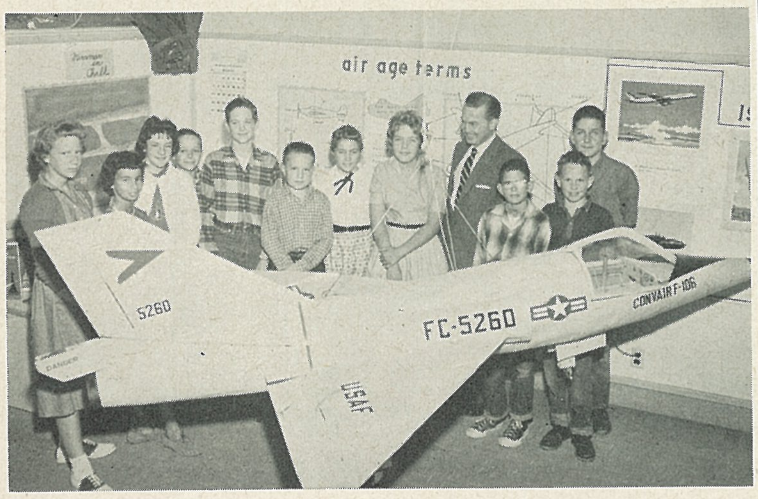
Convair San Diego's Plant 2 isn't the only place that produces the F-106. A class of sixth-graders is running Convair a close second.

Twenty-four youngsters of Charles Page's class at Stephen Collins Foster School have built a plywood and chipboard F-106, so realistic that it looks as if it might soar off at any moment. Lights flash, elevons and rudder move, an engine roars. A drag chute even pops out!

The model plane was constructed as part of the grade's 13-week air transportation project in social studies. Practical considerations governed the choice of plane. The F-106 was not only a San Diego-built craft, but its dimensions, when scaled down, would just fit within the materials on hand. Also, the young builders computed that it would go through the schoolroom door. It does, but just barely. The 12-foot long model has a six-foot wing span.

It is now on display at the Board of Education Center and then will go back to hang in the Foster School auditorium.

B. F. Coggan, Convair vice president and SD manager, was invited in to inspect the model recently. He handed around F-106 models and Delta pins.



LIFE-LIKE—B. F. Coggan, SD manager, admires realistic model of F-106 built by sixth-graders at Stephen Collins Foster School as part of air transportation project.

Bugle Calls Still Play

Movies Give Lasting Life to Music Of One-Time Top Stage Trumpeter

One of the country's most expert trumpeters, whose bugle calls are still heard from motion picture sound tracks, has been assembling planes, and now missiles, for Convair SD and Astronautics the last ten years.

Before his retirement from show business in 1950, Aime J. Reinwald (Astro-Dept. 773) had crisscrossed the country dozens of times and traveled thousands of miles with name dance bands, concert orchestras, Army bands. He spent years in Hollywood recording music and all the bugle calls used in over 50 movies released during the '30s.

Convair long-timers will remember him as the leader of the 19th Coast Artillery band at Fort Rosecrans which played inside the Convair SD plant during World War II bond drives.

The story of Reinwald's almost 40 years on the concert stage or in orchestra pits reads like a Who's Who of musical history.

"I was a youngster in Utica, N. Y., when I began to tag after Salvation Army and circus bands, the only bands we ever heard at that time. I was nine years old when I sold soap and saved the wrappers for my first cornet."





THEN AND NOW—A. J. Reinwald of Astro Dept. 773, recalls happy years as trumpeter with famous dance bands and orchestras. Above, he blows call as leader of Fort Rosecrans Army band during World War II.

He went on tour at age 12!

"My first engagement was fifth cornet in a straight musical act with four other boys. We toured for over two years. And didn't skip school a day either, since we had a tutor along."

After moving to California with his family and finishing school, Reinwald began playing steadily with bands, first with theater orchestras during the silent movie days, providing background music for such extravaganzas as "Birth of a Nation."

Then came a stretch in the Army, from 1916 to 1919, including a stint in France, with the band, of course. Back into civilian life at the close of the war, Reinwald resumed his tours throughout the country with well-known jazz and dance bands of that era, including Max Fisher's and Don Clark's. He played the Pantages and Warner Bros. theaters in L. A. until "talking pictures" eliminated the need for theater orchestras about 1930. Moving on to Warner Bros. Studio with its recording orchestra he freelanced for the next ten years, recording for MGM, Fox, Republic, and Paramount.

One of the highlights of his movie career was the fanfare he blew on the three-foot long trumpet in "Hunchback of Notre Dame."

"The RKO studio couldn't come up with an authentic 15th-century blast, so I made one up as I went along, purely by accident. It suited Director William Dieterle fine," recalls Reinwald.

He blew over 130 bugle calls in "The Real Glory," alone, as well as the calls dubbed in "Gone With the Wind," "Santa Fe Trail," "Brigham Young," and many, many others.

(Mrs. Reinwald, technical illustrator with SD educational services, also boasts a talented background with years in Hollywood doing art work for such movie studios as Walt Disney's and Columbia.)

Veteran Accounting Supervisor Dies

Funeral services for J. E. "Jack" Perkins, veteran Convair accounting supervisor, were held in San Diego April 8.

Perkins died April 4.

For the past 15 years he worked with Convair San Diego and Astronautics, joining the latter shortly after it was organized. Since September, 1957, he has been chief of budgets and cost control at Astro's Air Force Missile Test Center operation in Florida.

Perkins is survived by his wife, Gloria, and three children, Pamela, John and Peter.

Astro's Dean McCoy Attends NY Meeting

Dean H. McCoy, engineering office administrator at Astronautics and member of Employees' Con-Trib-Club Committee, attended a special New York City meeting last month.

McCoy took part in the National Budget and Consultation Committee meeting as a representative of the United Fund of San Diego County. This group reviews programs and budgetary needs of more than 30 national health and welfare organizations. Taking part were business, labor and civic leaders from 39 states

SD Product Support Moves to Bldg. 51

Over 200 product support people at Convair SD have vacated the Bldg. 4 mezzanine to move to the third floor of Bldg. 51, Plant 1.

The section is now consolidated with engineering design functions in E and A areas of 51-3 after calling the south end of Bldg. 4 mezz home since last July.

The product support group includes 203 persons with supporting functions of tooling, material checking, and structural numbering 28 people.

Cal. Time to Change Sunday a.m., April 24

Convair people in California will go on Daylight Saving Time the last Sunday of this month (April 24).

Clocks will be set ahead one hour at 2 a.m. on that day, according to California state law.

Convair folk at San Diego, Astronautics, Pomona operating divisions and off-site bases in California will be reporting to work an hour earlier the next day, Monday (April 25).

AF Officers Based at Astro Tour 880, F-106 Production Areas

Two Air Force officers, based at Convair Astronautics in the training with industry program, are now viewing Convair San Diego and General Office operations.

Capt. Raymond M. Finney and Capt. Konrad George are spending this week circulating among Convair administrative functions in Bldg. 19 at San Diego. R. F. Smith, assistant to the vice president-administration, is in charge of their GO indoctrination.

During the previous two weeks, the officers received an intensive bird's-eye view of the airframe industry at Convair San Diego plants. They toured the Convair 880 and F-106 production areas and spent time in plant executive offices. Sections visited included industrial engineering, educational services, industrial relations, labor relations, master planning, contracts, controller's, manufacturing control, quality control, material at Rose Canyon, service parts, customer requirements, as well as the offices of SD Manager B. F. Coggan, and Conrad Kunze, assistant manager-operations.

The San Diego visit was coordinated through SD educational services with Mark Saunders in charge of arrangements.

Captains Finney and George are two of the eight AF officers assigned by the AF Institute of Technology to Astro this year in the production procurement program. During the year they will spend time at all of Convair's operating divisions.

In the same training with industry program at Convair SD are Maj. Kenneth Gorton and Capt. Thomas Townes, who will end their year in August. During this spring they will visit Convair Pomona and Astro plants.



WELCOME ABOARD—R. F. Smith, Convair assistant to vice president-administration, greets Capts. Konrad George and R. M. Finney, AF officers assigned to Astro, upon three-week assignment at Convair SD and General Office. At right is H. W. Rubottom, chief of SD educational services, coordinator of program.

NEWS FROM OTHER DYNAMICS DIVISIONS

General Dynamics Corporation, created in April, 1952, as successor to Electric Boat Company, is composed of seven divisions and a Canadian subsidiary, Canadair Limited, of Montreal, airframe builders. The divisions are:

Convair, head offices at San Diego, Calif., aircraft, missiles, and space systems.

Electric Boat of Groton, Conn., submarines.

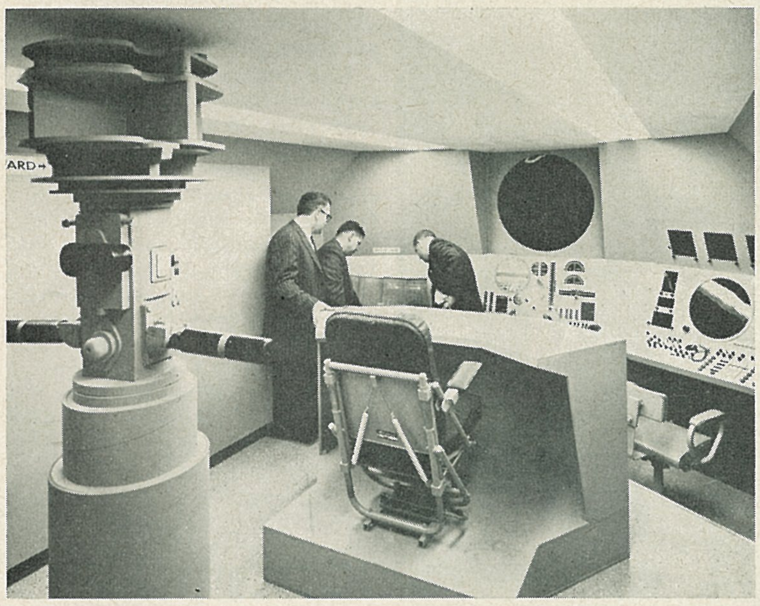
Stromberg-Carlson, of Rochester, N. Y., telecommunications, electronic equipment.

Liquid Carbonic of Chicago, Ill., carbon dioxide producer, industrial and medical gases.

General Atomic of San Diego, Calif., nuclear research, development, production.

Electro Dynamic of Bayonne, N. J., electric motors, generators.

Material Service Division, Chicago, Ill., building materials, concrete products and coal.



CONTROL CENTER—This is mockup of integrated control center for atomic submarines of future. Simplified controls will utilize electronic computers, data processing equipment and visual displays. Mockup is outgrowth of studies by Electric Boat.

Tullibee Launching April 27; Built to Battle Other Subs

GROTON—The Navy's first nuclear-powered submarine designed for anti-submarine warfare, the Tullibee (SSN 597), will be launched April 27 at Electric Boat Division here.

The ship will be sponsored by Mrs. John F. Davidson, widow of the World War II Tullibee's commanding officer, Lt. Cdr. Charles F. Brindupke, and wife of Rear Adm. John F. Davidson, Chief, Navy Group, joint United States military mission for aid to Turkey.

Equipped with highly-sensitive underwater detection systems, the 273-foot-long Tullibee represents a major advancement in the Navy's development of anti-submarine warfare weapons. Displacing 2,600 tons, she combines the latest in scientific sonar tracking equipment with the endurance of nuclear power.

The Tullibee's pressurized water nuclear reactor is being built by Combustion Engineering, Inc., in Windsor, Conn.

The nuclear-powered Tullibee's World War II namesake was a veteran of four Pacific war patrols and responsible for sinking and damaging more than 35,000 tons of Japanese shipping in less than a year. She was lost in action off Palau in March, 1944.

★ ★ ★

GROTON—Electric Boat Division has received a contract from the Navy's Bureau of Ships for initial plans and design services for a new class of fleet ballistic missile (Polaris) submarines.

The first Polaris submarine, the USS George Washington, SSB(N) 598, and four others of the same class are basically the same design as attack submarines similar to the USS Skipjack, SSN 585, lengthened and modified to accommodate a missile compartment.

The second generation of Polaris submarines, known as the SSB(N) 608 class from the lead ship, the Ethan Allen, SSB(N) 608, were designed originally as Polaris missile submarines.

This design contract will initiate a third class of Polaris submarines to be known as the SSB-(N) 616 class, which will be similar to the SSB(N) 608 class but will have components evolved from the earlier design, including the newest weapon system techniques.



QUEEN—Paula Pace, daughter of General Dynamics' Frank Pace Jr., accepts bouquet from Morris Shuster, district sales manager for Capital Airlines, on her election as Queen of International Azalea Festival at Norfolk, Va. She is a student at Concord Academy in Concord, Mass.

Adkins Named Comptroller

NEW YORK—Lisle W. Adkins, comptroller of General Dynamics Corporation since January, 1955, has been elected vice president and comptroller of the corporation.

A native of Oswego, N. Y., Adkins joined the Crosley Corporation in 1942 as comptroller after being associated with the United States Foil Company and the Reynolds Metals Company in various executive capacities. After Crosley's merger with the Avco Manufacturing Corporation, he became controller of the Crosley Division, later rising to general manager of administration for the Crosley and Bendix Home Appliances Divisions when they were consolidated.

Stromberg-Carlson Leases New Space In SD Expansion

SAN DIEGO — As part of a planned overall expansion, Stromberg-Carlson-San Diego has leased new office space in the Clairemont area here.

The move to the new 10,800 square foot building at 4966 Diane Avenue, off Clairemont Mesa Blvd., took place this month.

It will give the company three major operating locations here and brings total plant area to nearly 88,000 square feet. In addition to a systems plant at 1895 Hancock, Stromberg-Carlson maintains a Tube Plant, home of the CHARACTRON shaped beam tube, at 3235 Hancock Street.

The move will permit immediate expansion of factory and engineering activities, which remain at the systems plant.

Security Risks We Can Do Without



TIPOFF TOOTS
"I guess it wouldn't hurt to tell you *this* much . . ."

Veteran Supervisor At Pomona Is Dead

Funeral service for Herbert H. Gebauer, asistant foreman Dept. 4 at Convair Pomona, was conducted March 26 at Todd Memorial North Chapel in Pomona. He died suddenly March 23.

Gebauer, native of Hoboken, New Jersey, had worked for Convair San Diego and Pomona for 19 years.

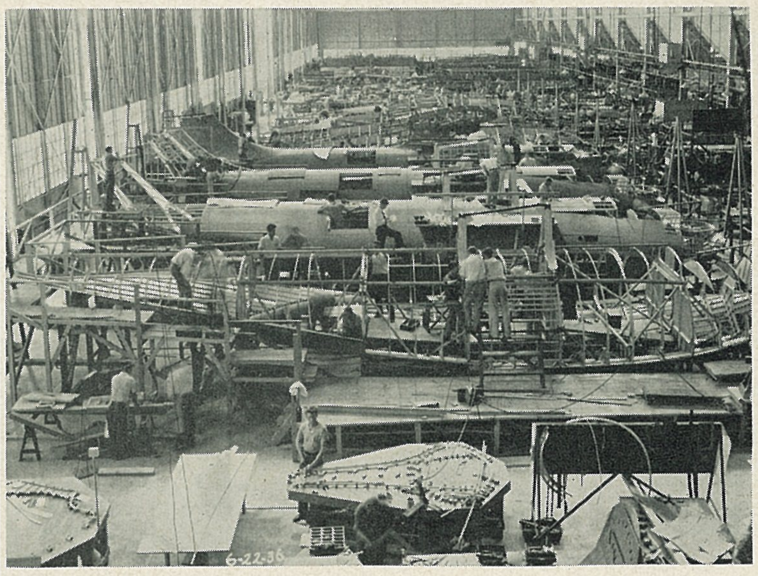
Survivors include his wife Violet J. Gebauer, a son Frederick C. Gebauer, and stepdaughters Judie A. Poyser and Mrs. June E. Knipping.

No Doubt About it, He's Got a Point

"Can you get this out of my eye?" a weeping Convair SD man asked recently as he opened wide a bloodshot eye.

"You're in the wrong place. The plant hospital is around the corner."

"But your sign says 'Visual Aids'!"



FACTORY SCENE—PBY-1 hulls are shown under construction at San Diego in 1936. This was several years before pre-war plant expansion took place.

'Explosion'

Months Before Pearl Harbor A Period of Rapid Expansion

(This history of Convair has been continuing in installment form for more than a year now. Following is "take" No. 32.)

Consolidated Aircraft received a $20 million Navy order on Dec. 20, 1939. To provide manufacturing space, an additional 411,000 sq. ft. was made to the factory at San Diego at a cost of about $2½ million. A facilities contract provided that the government would reimburse the company and take title on completion of construction.

Foreseeing additional orders, Consolidated launched a second expansion program in the spring of 1940. This included final assembly and parts assembly buildings having 645,900 sq. ft. of space. In November, when construction was far advanced, the company negotiated an Emergency Plant Facilities contract with the Navy, calling for reimbursement of the estimated $3 million.

Still greater expansion started Nov. 16, when Consolidated signed a contract with the Defense Plant Corp. for construction of a huge government-financed parts plant on a site a mile north of the home factory, connected with it by private road and an 827-ft. overpass spanning Pacific Highway. This would add 1,593,000 sq. ft. of floor space. The three main buildings of what became known as Plant 2 were each 750 ft. long and 450 ft. wide.

Selection of the site was announced only after Consolidated President Reuben Fleet had staved off government suggestions that the plant be located elsewhere. He consented to make a flying trip to the proposed locations — including Fort Worth, Oklahoma City and New Orleans —but found compelling arguments against each and flew on to Washington to argue his case.

Fleet had never shied away from argument with government officials and the aviation industry's period of pre-war "expansion by explosion" provided many tests of his boiling point.

"They expected me to holler and holler I did," he has said.

His story of procuring reimbursement for the first of Consolidated's plant expansions is typical. Eight and a half months had gone by after the company completed construction and submitted its last invoice. No repayment on the $2½ million expenditure had come through from the Treasury Department. As a locale for boiling over Fleet chose a Washington conference attended by the heads of the 12 major aircraft companies. The meeting was called by Gen. William S. Knudsen, director of the Office of Production Management, to discuss the auto industry's role in aviation if the United States entered the war.

"Knudsen called on us around the table for comment," Fleet has related. "When he got to me, I said it was obvious that he would have to use the auto industry to get anywhere near the planes we would need. But I said I thought a bigger question was whether you could bank on Uncle Sam's word any more. I told them about waiting eight and a half months. I said if I weren't compelled to use dollar bills bearing Henry Morgenthau's signature, I'd certainly look upon them as being worthless.

"Forrestal (then Undersecretary of the Navy) spoke up and said, 'Don't blame Secy. Morgenthau, your invoices are all on my desk. The Navy Department hasn't worked out a way to pay you.'

"I said, 'Mr. Forrestal, you're supposed to be a businessman. You've got to trust somebody. If I don't have my money by tomorrow morning when we meet again, every man in this room is going to know about it.'"

According to Fleet, Forrestal came to him after the conference and asked, "What would you do in my place?" Fleet replied, "I'd give the Chief of Supplies and Accounts ten minutes to get me a check for the whole sum. Then I'd let them audit invoices to their heart's content. If they found any errors, they could put a stop order on Consolidated for the amount."

The outcome was satisfactory, to Fleet at least. He received his check that night.

While Plant 2 was under construction, the government rushed public housing development to accommodate workers who were recruited throughout the country. The largest project was Linda Vista, laid out on a brush-covered mesa north of San Diego as a city within a city, having its own schools, stores and churches. Linda Vista offered quarters for 3,000 families at first and was expanded later.

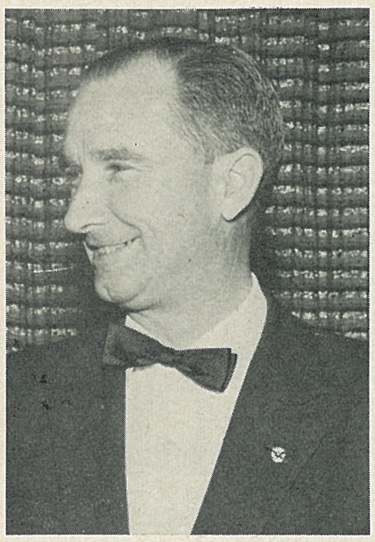
Plant 2 was completed in the fall of 1941 and dedicated Oct. 20 by Artemus L. Gates, Assistant Secretary of the Navy for Air. At that time the Consolidated payroll stood at 24,000, compared to 3,170 early in 1940. It would climb to 33,000 by the end of the year and to 45,000 by the summer of 1942.

PILOTS' SYMPOSIUM SET FOR THIS FALL

Convair pilots, engineers, and technicians who plan to prepare papers for the annual symposium of Society of Experimental Test Pilots are asked to contact the society's office at 44919 Cedar Ave., Lancaster.

This year's symposium will be held Oct. 6-8 in Los Angeles.

General theme for the technical meetings will be "The Age of Omni-Sonic Flight." Discussions will include "The Atmospheric Vehicles of the Omni-Sonic Air Age," "The Space Vehicles of the Omni-Sonic Space Age," "Crew Selection and Training in the Omni-Sonic Air Age," and "Crew and Passenger Environment in Omni-Sonic Air Age."



CONGRATULATIONS — R. L. Williams, Dept. 215 foreman, SD, last month completed 30 years of Convair service.

Log Book Entries

Service Emblems

SAN DIEGO

Service emblems due during the period April 1 through April 15.

Twenty-five-year: Dept. 136, C. S. Halsey.

Twenty-year: Dept. 6, D. H. Bennett, S. C. Southerland; Dept. 7-40, Henry Eigenmann, F. C. Pridgen, H. W. Schuster; Dept. 31, A. G. Johnson, G. V. Kobets, A. J. Lux; Dept. 180, H. H. Frein; Dept. 188-0, T. W. Brotherton Jr.; Dept. 192-2, J. W. Hoerger; Dept. 400-1, F. E. Rockey; Dept. 401, W. L. Clapper, H. E. Kobrich.

Fifteen-year: Dept. 1-51, Ellen C. Andreasen; Dept. 1-96, L. F. Flinn; Dept. 6-21, M. W. McCreary; Dept. 7-10, J. R. Behrns; Dept. 8-1, A. W. Pisarchik; Dept. 15-6, H. L. Evans; Dept. 31, Ruben Casillas; Dept. 44, J. B. Gilmore, Jewel L. Hilton; Dept. 123, J. R. McDonald Jr.; Dept. 140, O. W. Dare; Dept. 171, R. R. Fargo; Dept. 266, E. E. Griggs; Dept. 288-6, F. A. Drinkwater; Dept. 400-3, N. L. Smith.

Ten-year: Dept. 3-2, Anne S. King; Dept. 6, D. H. DeMarce, G. L. Droke, F. W. Reed Jr., B. E. Shirk; Dept. 8-4, K. C. McCoy; Dept. 14-4, Julia E. Olson; Dept. 93-8, G. F. Lawrence; Dept. 95-3, J. A. May; Dept. 101, Grace M. Salley; Dept. 102, Forrest Martin.

Dept. 143, Agnes Grider; Dept. 171, H. E. Parker; Dept. 192-2, Isobel W. Palmer; Dept. 197-8, C. J. Blynn; Dept. 230, L. J. Wasson; Dept. 233, H. T. Chambers; Dept. 288-8, Clarinda W. Teegarden; Dept. 400-5, E. A. Rivera; Dept. 401-4, E. B. Denton Jr.

Retirements

BENOIT—Joseph F., Dept. 14-8. Seniority date Nov. 8, 1950, retirement effective March 25, 1960.

ERIKSEN—Lars P., Dept. 401. Seniority date April 13, 1951, retirement effective March 25, 1960.

GARDNER—Harry, Dept. 401-1. Seniority date March 6, 1952, retirement effective March 25, 1960.

GATES—Henry G., Dept. 192-3. Seniority date Dec. 1, 1952, retirement effective April 1, 1960.

GURNEY—Charles F., Dept. 215. Seniority date March 11, 1952, retirement effective April 2, 1960.

ISAACSON—Eric E., Dept. 14-8. Seniority date April 4, 1952, retirement effective April 1, 1960.

LUGAR—Frank, Dept. 14-7. Seniority date Sept. 27, 1951, retirement effective March 25, 1960.

McDOWELL—Mildred E., Dept. 15-1. Seniority date June 15, 1953, retirement effective March 31, 1960.

MUNGER—Kenneth J., Dept. 400-2. Seniority date Sept. 6, 1950, retirement effective March 31, 1960.

NAAB—Edward T., Dept. 115. Seniority date Oct. 13, 1947, retirement effective March 25, 1960.

STECKELBERG—Peter H., Dept. 401. Seniority date Nov. 4, 1946, retirement effective March 25, 1960.

WEISS—Clarence, Dept. 401-0. Seniority date Oct. 8, 1953, retirement effective March 22, 1960.

Personals

We wish to express our profound thanks to those who were so kind and thoughtful during the illness and death of Eugene Karr, Dept. 123. We deeply appreciate the many expressions of sympathy, generosity, and beautiful flowers sent by friends at both Convair Plants 1 and 2.

Mrs. Eugene Karr and family.

* * *

I wish to thank the many Convair friends for the expressions of sympathy and beautiful floral tributes sent at the loss of my father.

Vernice Gray, Dept. 98-6.

Promotions

Promotion to supervision effective March 28.

Dept. 6-53, Engineering: To asst. research group engineer, W. L. Johnston.

Lost & Found

LOST—Lady's Bulova bracelet watch, yellow gold, in women's rest room, Col. 21E, Bldg. 1, Plant 2. Contact Edith Garner, Dept. 288-2, ext. 539.

Births

CROSS—Daughter, Karen Jean, 7 lbs., 13 oz., born Feb. 24 to Mr. and Mrs. O. F. Cross, Dept. 142.

Deaths

CATES—Frederick, Dept. 133. Died March 24. Survived by wife, Mary Louise, parents.

KARR—Eugene C., Dept. 123-9. Died March 27. Survived by wife, Bernice; daughter, Mrs. Patsy Hughes; son, Johnnie Karr; mother; brother; two sisters.

KUHLES—Francis T., Dept. 400. Died March 28. Survived by wife, Cleo; daughters, Evelyn Spacensky, Mildred Watson.

Astro Invites Sq. Dancers to April 30 Party

A big "blast off" dance to launch full-time square dancing at Convair Astronautics is set for 8 p.m. April 30 at the Astro cafeteria, according to Marty Stutz, CRA commissioner.

The occasion will mark the initial use of the new square dance group name—Astro-Nauts—at Astronautics.

Invitations have gone out to all square dance groups in the area and a crowd is expected to take part in the first big square dance staged by Astro CRA.

Admission price is 50 cents per person. Van Vander Walker, veteran CRA instructor and caller, will head a group of callers which will also include guest callers from various areas.

Prizes, refreshments and added entertainment will be included in the celebration.

All Astro and San Diego square dancers are invited to take part, whether they are members of CRA-sponsored groups or not, Stutz said.

Astro Golfers Low Scorers

Art King and Hal Napier, both of Astronautics, tied for low gross honors in the Convair Golf Club sweepstakes March 26-27 at Circle R Ranch.

Second place in the same division ended in a deadlock between Stan Gymr of Astro and Ralph Long of San Diego.

In the 0-12 handicap bracket low net honors went to Jim Long (Astro), Dick Posladek (SD), Hank Crouthamel (Astro) and Jack Ross (Astro) in that order.

Low net in the handicap bracket found Jim Busby and Jim Fair, both Astro, ahead of San Diego's Fred Wells and W. S. Rutherford.

J. R. Lind (SD) paced the 18-23 bracket low net field with Jack Thomas, Bob Longino and Andy Corrao of Astro trailing respectively.

Jack Boyle Jr. (Astro) won low net honors in the 24-36 category, finishing ahead of Andy Phelps (SD), Lou Canter (Astro) and Harry Smith (SD).

Water Skiers Plan Monthly Meetings

Water skiers at Convair SD will hold regular club meetings on the first Thursday of the month starting May 5, T. E. Mathews, commissioner, reports.

The May meeting will start with a potluck supper at 6:30 p.m. in the Gillespie Field CRA Clubhouse. Members will decide dates for an out-of-town weekend of skiing as well as firm plans for summer activities and tournament schedules.

Prospective members are invited to attend the meeting. Films will be shown and refreshments served. For additional information contact Gene Sevigny, club commodore, at BR-3-0828.

City Rose Society Invites SD Entries

Rose growers at Convair SD are invited to enter blooms in the 33rd annual Spring Rose Show April 23-24 in the Balboa Park Conference Bldg., according to C. J. Lewis Jr. (Dept. 25), president of the San Diego Rose Society.

Entries will be accepted between 7 and 10:30 a.m. Saturday morning (April 23). SD folk are invited to view blooms on both show days, Lewis added.

Choralaires Slate Escondido Concert

Convair SD's mixed vocal chorus will present its fourth annual concert April 29 at the Methodist Church in Escondido.

William Vogel, Choralaires' director, will host chorus members at his home after the concert.



RECORD FLIGHT—Nat Antonioli (SD Dept. 6) watches hopefully as his model takes off during third semi-annual free flight gas model contest sponsored by SD CRA Aeromodelers. Antonioli placed first in Class A with longest flight, 20 minutes, 35 seconds.

Nat Antonioli Wins Model Meet, Ten Others Take Top Honors

No less than 11 modelers won honors April 3 at the third semi-annual free flight gas model contest sponsored by the SD CRA Aeromodelers.

Top honors in the meet went to Nat Antonioli (Dept. 6) who maneuvered his plane aloft for 20 minutes, 35 seconds in the Class A event. To qualify for the record flight, Antonioli completed three maximum flights of five minutes each.

In addition to his class A victory, Antonioli placed second in the ½A event.

Rollie Dexter set the second-best mark in Class A, chalking up 20 minutes and seven seconds of flight time, according to Gary Witt, club spokesman.

In addition to Antonioli, other Convair winners were Darrell Ybarrondo, and juniors, Dan Keller and Norman Waters.

SD Club Schedules May Golf Tourney

Fifth annual Convair SD Management Club Golf Tournament is scheduled for Sunday (May 8) over the west course at Singing Hills.

Entry fees are not required for the event but Management Club members are asked to form their own foursomes and reserve starting times by calling Winette, ext. 382, Plant 2.

Any cancellations must be phoned in by Monday (May 2) to prevent financial loss to the club.

Additional information can be obtained by contacting Russ Davis, ext. 335, Plant 2.

Management Club members are also asked to reserve June 4 and 5 for the annual National Management Association Zone A Golf Tourney to be held at Apple Valley.

Anniversary Rally Slated by Car Club

Convair SD Sports Car Club will stage a Sixth Anniversary Rally Sunday (April 24) starting from the Bldg. 19 parking lot at noon.

It will be a fun-type rally, expected to last about four hours, with participation limited to club members and guests.

First Summer Show Planned By SD Riders

More than 5,000 spectators and exhibitors are expected to be on hand May 7-8 at Valley Lane Farms in Mission Valley when Convair SD Riding Club stages its first Horse Show of the summer.

Luke Barbour has been appointed manager of the show which will feature the Riding Club color guard as an added attraction.

Contestants will compete for points in 35 classes to be held in English, Western, Hunter's and Jumper's divisions.

C. L. Pogorel, CRA commissioner, said the show is a full-qualification event accredited by the San Diego Trainer's Association. Other than the Del Mar Horse Show it will be the largest of its kind in San Diego county this year.

Roughly 500 exhibitors are expected to vie for show honors. No admission for spectators is charged. Show hours extend from 9 a.m. to 5 p.m. both days.

Trophies and ribbons will be awarded winners in each event. Questions should be directed to Barbour, HO-6-6536, after 5 p.m.

'Ramona' Play Date Set for SD, Astro

Convair SD and Astro people can still sign for a specially-priced trip to Hemet to see the May 1 performance of "Ramona."

Price of round-trip bus transportation, ticket to the play, and refreshments en route is $5.50 a person.

Juanita Wilson (Dept. 190) at HU-8-6476, or Joyce Simon (Dept. 1-71), CY-5-1967, will take reservations through tomorrow (April 14).

New Class Arranged For Novice Dancers By CRA Hoedowners

A new CRA-sponsored beginners' square dancing class, conducted by the Convair SD Hoedowners, will get under way Monday (April 25) at 8 p.m. in the American Legion Hall, 4061 Fairmount Ave.

As in the past, the class, one of only two started each year, is open to all Convair SD folk and family members. Classes are geared so that they are both enjoyable and instructive. Those who wish can continue right through the square dancing program into the intermediate and advanced groups.

New students can enter the class by merely attending the first meeting on April 25. Registration will remain open for another week or so after the class then close for the next six months. For further information, contact employee services, ext. 1245, Plant 1.

In other Hoedowners' activities, Maury Scholz, co-commissioner, reports that the CRA dancers April 2 gave a special exhibition at Mission Valley Inn in connection with a "Dodge City Days" celebration.

Scholz said the Hoedowners blended right into the Western surroundings with Hoedowners rubbing elbows with "gun slingers" and "cowboys." The Hoedowners have already been invited back to put on another exhibition.

New SD Pistol Team Selected

Two Pistol Club members, J. B. Carroll (Dept. 3-1) and Carl Hornburg (Dept. 139), have earned spots for the first time on Convair SD's top CRA pistol team.

They join Jim Halfacre (Dept. 180) and Joe Williamson (Dept. 401-5), team members of long standing, and will represent the SD Pistol Club in outside competitions during the next three months.

Team members are selected on the basis of aggregate scores tallied in National Match events during the past quarter. Carroll led scoring with 846 points, followed by Halfacre with 798 points, Williamson with 782, and Hornburg with 753.

Carroll, a former Navy pistol shooter, is a relatively new club member while Hornburg has improved steadily during the past few years to earn a position on the team, according to Ash Bishop, commissioner.

Results of the March 27 shoot saw Halfacre place first in both .22 Police Course and Short National events. In both, Halfacre edged Joe Williamson by one point.

In the expert class, Hornburg took honors with a 283 score and Dorcus Utter (wife of Arley Utter, Dept. 119) won the sharpshooter class with 259 points.

Expert to Address CRA Coin Clubbers

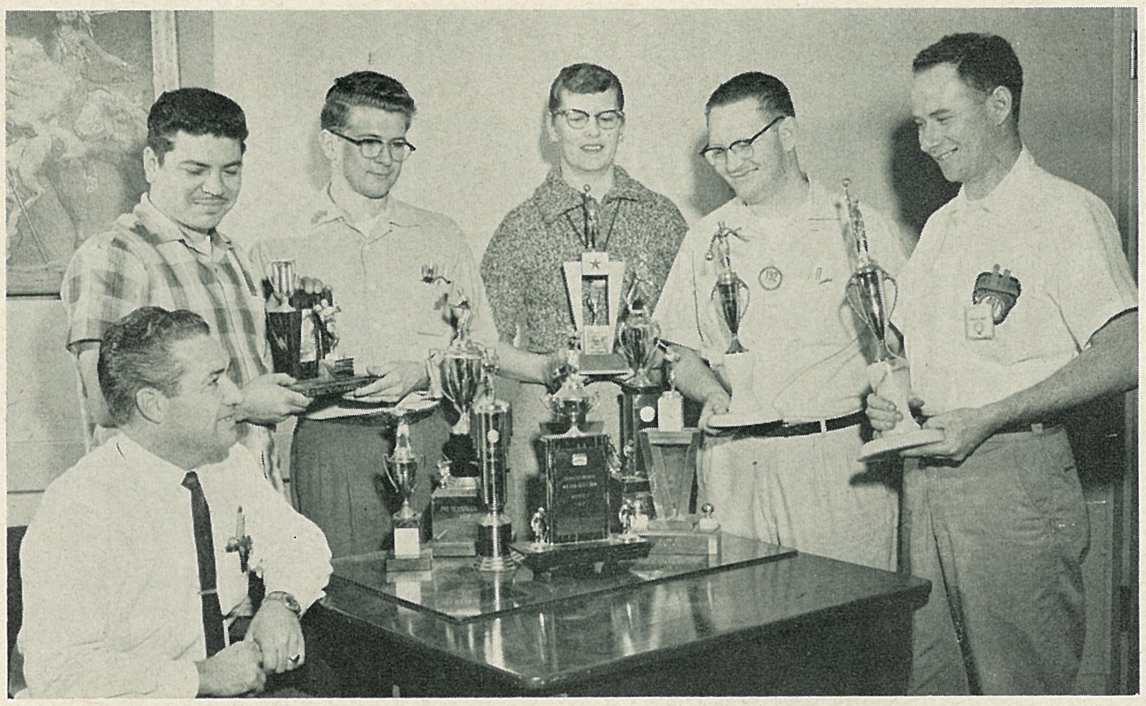
A past president of the San Diego Numismatic Society, Francis Jones, will discuss "Housing Coins" at a meeting of the Convair SD Coin Club April 19 at 8 p.m. in the Hearing Aid Society Bldg., 3843 Herbert St.

Jones' talk will be of particular interest to beginning coin collectors, emphasize preservation and handling of proof sets, mint sets, etc. A coin auction and social period will fill out the meeting.

SD Chess Clubbers Chalk Up Two Wins

Chess Clubbers from Convair SD outscored their counterparts from Astronautics 12 games to 3 during a recent tourney, Newton Grant, club spokesman, reports.

In another series of matches last month, a "pickup" team of SD players defeated members of the Tijuana Chess Club, 6½ to 3½.



TOP COACHES—Convair SD hoop teams chalked up no less than three championships in city leagues during past season and crowned new shop league winner. Gil Crosthwaite, commissioner (seated), congratulates team coaches (from left): Bob Samano and Bill Whalen, coaches of 880 Jets and Dept. 6 Electrical, who met in playoff game to decide shop league title; Jean Todd, player and manager of Girls' Team, first place winner in City Women's League; Sam Frankel, coach of Convair "A" team which placed first in National City League and second in Metro; and Fred DeGreef, coach of Tool Manufacturing team that swept honors in Industrial A League.

Radio Club Code and Theory Class Under Way This Week in Clubhouse

Students will be able to register for a new code and theory class, sponsored by the Convair SD Radio Club, at a session tonight (April 13) starting at 6:30 p.m. in the club's Harbor Drive headquarters.

The class met for the first time on Monday, will continue to meet for two-hour classes each Monday and Wednesday for about 10 weeks.

All Convair SD folk and family members are invited to take the course which covers requirements for amateur novice and general licenses. During the past few years, more than 70 per cent of the students have earned licenses.

A number of major club events are on tap for the next two months which members are urged to attend, according to J. B. Baker, commissioner.

The first is a potluck dinner slated for April 28 in the Harbor Drive clubhouse. Those attending are asked to furnish the main courses, the club will provide coffee and dessert for the affair which starts at 7 p.m.

At meetings tomorrow (April 14) and April 28 members are requested to be on hand to lay groundwork for the annual election of officers which will take place at a meeting on May 12.

Other business on the agenda of the April meetings is discussion of the field day slated for the third weekend in June.

New club officers, Baker added, will be installed at a dinner party on Saturday (May 28).

Dept. 6 New Shop Champ

Dept. 6 Electrical dumped the 880 Jets two weeks ago in the final tilt of a three-game play off series to emerge winner of the Convair SD shop league.

Electrical, first-round winner, beat the Jets, second-round champ, 46-37 in the final game. In the two preceding playoff games, Electrical won the first, but lost the second. The Jets claimed the second-round championship by breaking a tie for first with Dept. 6 Physics.

Crowning of Electrical as shop league champ gives Convair SD four hoop league winners, including three first-place teams in city leagues.

Members of all winning teams were feted last week at an awards banquet at the Elks Club. Individual and team trophy presentations were made.

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Convair Hoopsters Grab Championship

A 59-44 victory last month over Bay Furniture gave Convair's AAA basketball entry the championship of the National City League.

The same squad placed second in the city Metro League earlier in the month.

In the National City competition the SD hoopsters won the second round of play drubbing Rohr to the tune of 70-50. From there they went on to best the first-round winner, Bay Furniture, for the championship.

Coach Sam Frankel's team was led throughout the season by the playmaking and shooting of Curt and "Whitey" James, Gordy Place and Tom Roach.

Other members of Convair SD's top hoop squad were Les Phillips, Ken Farnsworth, Al Love, Joe Hayes, and Norm Dahl.

CRA *Sports & Recreation* Convairiety

100 Win Bowling Awards In Annual CRA Tourney; Boy, 13, Wins Singles

Over 100 persons took home cash or merchandise prizes at Convair SD after the recently-completed 19th annual Convair SD Plant Championship Bowling Tournament.

Top bowlers will be recognized at a special dinner for tourney and SD league champs tentatively scheduled for May 28 at Michael's Restaurant in Lemon Grove.

Jim Hayman and Mike Brooks, co-commissioners, report that over 500 keglers competed in the tourney, with 89 teams entered, 176 doubles, and 290 in the all-events bracket.

Honors for the top handicap series rolled by a men's team went to the Hot Dogs #1 with 3,085 points. In the men's team scratch bracket the leader was Experimental with a score of 2,768.

The Screwballs led entries in the mixed team handicap group with 3,028.

Members of the top doubles scratch team were Mike Brooks and Bill Carson with a pinfall of 1,240. A 1,317 tally won handicap doubles honors for Claude Lepper and John Adams.

Handicapping the top score, 1,254, in the mixed doubles group were Katie Law and Don Lauder.

In the singles handicap group a 13-year-old boy, Barry Gray (son of B. B. Gray, Dept. 6), stole the thunder and the trophy from his adult competitors with a 754 tally. Incidentally, his scratch pinfall was 612!

Paul Aslin scratched 665 to win singles honors. Lorraine McIntyre placed first in the women's singles competition, handicapping a 659 total.

In the all-events bracket, Gordon Blade led men handicappers with 2,042, and Bill Carson took scratch honors with 1,829. Jackie Petty led the women, handicapping a score of 1,798.

LAS VEGAS JAUNT FOR SECOND SHIFT

Reservations for a Las Vegas trip, planned especially for second shifters at Convair SD, are now being taken at employee services, ext. 1245, Plant 1.

The chartered bus will leave on a Saturday morning at 3 a.m., return Monday about noon. Price is $20 for round-trip transportation and two nights at the Stardust Hotel in Las Vegas.

Definite dates for the second-shift trip will be scheduled as soon as 36 persons (bus capacity) sign up.

Demand for CRA's first Las Vegas trip April 22-24 filled one bus two days after the announcement.

CRA Calendar

(Convair SD Recreation Association has some 40 activities in operation. For information on SD sports, call CRA headquarters, ext. 1245, Plant 1.)

ARCHERY CLUB — April 21 meeting has been cancelled. Next meeting May 19, 7:30 p.m., CRA Clubhouse, Pacific Hwy.

BADMINTON—Open play for families Tuesday evenings at 7:30 in Balboa Park Federal Bldg.

BOWLING — Registration now open for summer league activity.

BRIDGE CLUB—Next session Tuesday (April 19), 7:30 p.m., Hotel Barcelona, Fourth and Juniper.

CAMPSTER BUILDING—Meeting Sunday (April 24) for all those interested in building campsters at 1 p.m., CRA Clubhouse, Gillespie Field.

FENCING — Workouts and classes every Friday, 7 p.m., downtown YMCA, 8th and C.

FISHING CLUB — Meeting Tuesday (April 19), 7:30 p.m., CRA Clubhouse, Gillespie Field.

ICE SKATING—Convair night every Thursday; discount rates between 6:30 and 8 p.m. at Iceland, 6055 Lake Murray Blvd.

JUDO—Workouts and instruction Thursdays, 7 p.m., CRA Clubhouse, Pacific Hwy.

MOVIES—Reduced-price movies each Tuesday night at Academy Theater, 3271 University Ave. April 19—"Heaven Knows, Mr. Allison," "Man Who Understood Women," and "Westbound." April 26—"Bridges at Toko-ri," "Pursuit of the Graf Spee," and "Island of the Lost Women." Admission: adults, 25¢; children, 15¢.

PISTOL CLUB — Next shoot Sunday (April 24), 9 a.m., San Diego Police Pistol Range, Federal Blvd. and Home Ave.

RADIO CLUB — Registrations open tonight (April 13) for new code and theory class, 6:30 p.m., Harbor Drive headquarters. Meeting tomorrow, 7:30 p.m., Harbor Drive headquarters.

ROLLER SKATING — Next skate night to be April 18 at Skateland, Front and G Sts. 6:30-9:30 p.m. Free tickets at employee services, both plants, and from departmental representatives.

SPORTS CAR CLUB — Sixth Anniversary Rally Sunday (April 24), cars leave Bldg. 19 parking lot at noon.

SQUARE DANCING — Beginners class starts Monday (April 25), 8 p.m., American Legion Hall, 4061 Fairmount Ave.

WOMEN'S ACTIVITIES—Registration now open at employee services for advanced charm school course to start May 3.

Charm School Registrations Are Now Open

Convair SD women can now make reservations for an advanced charm school course which will start next month under CRA sponsorship, said Martha Woodberry, CRA commissioner of women's activities.

Registration for the extension course will close when the limit of 25 is reached. Applications will be accepted on a first-come, first-served basis.

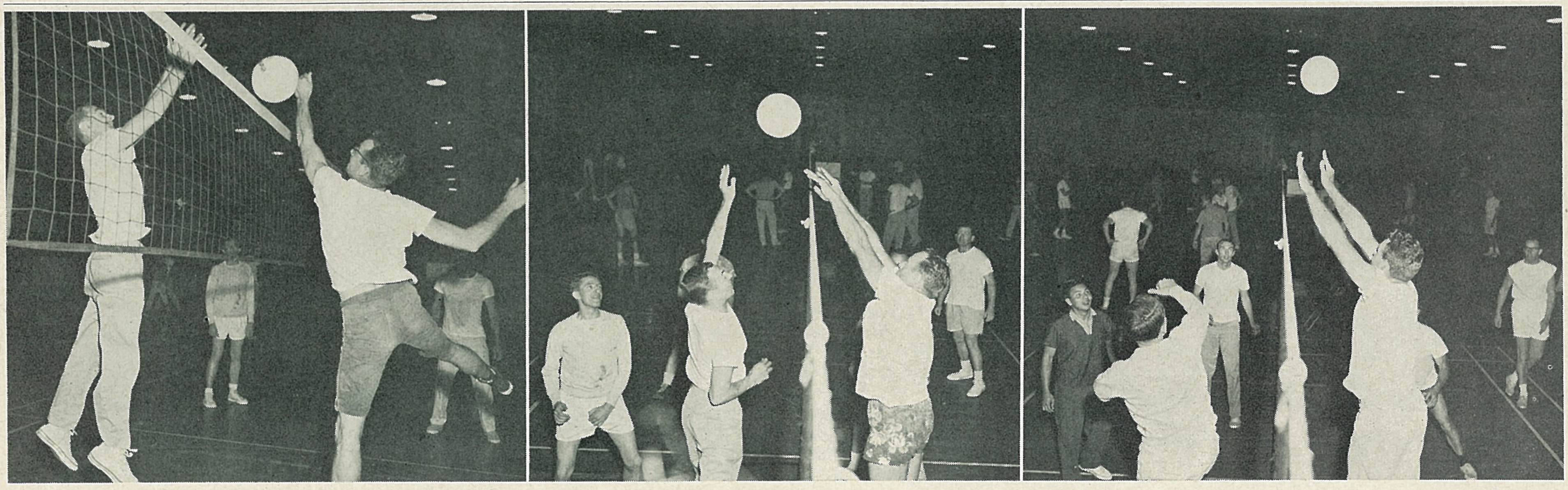
Opening session will be Tuesday (May 3) for the six-week course which is conducted by Edith Antelline. Cost, underwritten in part by CRA, is $15 per person. Classes will be held two hours, 7-9 p.m., each Tuesday evening in the House of Hospitality, Balboa Park.

Registration can be made now at employee services, both SD plants; with Bessie Cooper, ext. 100, Fordham St. location; Dorothy Kniffen Reed, ext. 2239, Rose Canyon.

Each student is given pointers on figure correction, posture, walking, modeling technique, makeup, hair-styling, and voice improvement to fit each one's particular problems. Also included is instruction in business and social etiquette and apparel.

EXPERT TO ATTEND FISHING MEETING

Orville Ball, San Diego fish and game authority, will be among guests at the April 19 meeting of the Convair SD Fishing Club, scheduled for 7:30 p.m. in the Gillespie Field CRA Clubhouse.



JUMPING JACKS—Shop league volleyball started season's play two weeks ago with six SD teams competing in Muni Gym, Balboa Park. Players in photos are from Industrial Engineering, Electrical, Structures and Propulsion. Teams rounding out league are Physics and Dept. 3.

Machines Guided by Tape "Brains" Produce 60,000th F-106 Part

Numerical control machines, guided by "brains" of tape, this month will churn out their 60,000th part for the Air Force F-106 at Convair San Diego's Plant 2.

The automatic tooling machines at SD, as new as the space age itself, are also "assisting" in the Atlas Centaur program, producing such parts as supports for the thrust unit and longerons for the thrust cylinder.

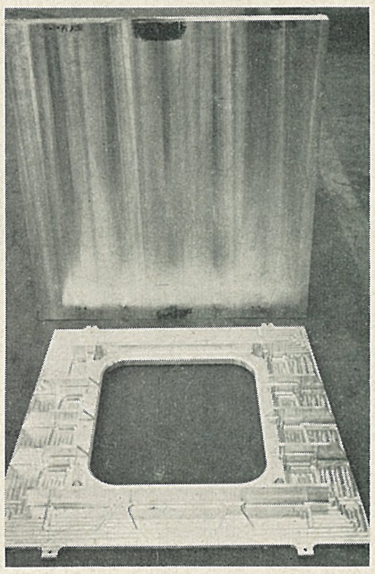
Though Atlas and F-106 work take up more than 80 per cent of numerical control time, the tape-guided tooling machines are also being utilized in the Convair 880 and 600 jetliner programs.

"Box beams" being produced for SD's newest commercial jetliners are typical examples of numerical control capabilities.

After setup time (about two hours), solid, rectangular aluminum billets, each weighing 526 lbs., are carved into finished parts in only ten hours of machining time.

The billets end up mere shadows of their former size, weigh but 45 lbs. as finished "box beams."

In general terms, H. G. Cooper, SD project engineer, estimates that a 45 to 65 per cent dollar saving is realized by using numerically-controlled skin mills, profilers and drill and counterbore machines. Cooper points out that less setup time is needed, tools and holding fixtures are simple, and time spent correcting



CLEAN CUT—Typical example of numerical control capabilities is F-106 fuselage tank skin (above). Through numerical control part is an integrally-stiffened unit, rather than fabricated assembly, with greater strength-per-rate ratio and less leakage problem.

warpage is eliminated.

Convair SD's numerical control installation, in terms of both "quantity of equipment and effectiveness of operation" ranks among the top five in the country, according to O. W. Sweetland, SD superintendent of tooling.

(Convair Fort Worth is also in the "top five," has even more numerically-controlled machines than SD. At both operating divisions the machines are Air Force-owned, but operated by Convair personnel.)

Some of the numerically-control-made-parts flying in the F-106 are fuel tank skins, floor beams, air intake duct skins, and fuselage cross beams.

In fact, the machines with the built-in "brain" can produce the smallest machinable aircraft part or others up to 12-ft. wide and 30-ft. long (about the size of the bed on the skin mill).

At times, depending on size of parts being made, the numerically-controlled skin mills can churn out six or seven parts in a single "pass." In other words the seven setups are placed on the bed at one time, the tape is fed into the machine's control center, and the cutting head moves, without stopping, from one part to another.

Cooper points out that "skin mill" is actually something of a misnomer. "More appropriately, in view of their many capabilities, they could be called production staging mills. This term would better describe their extreme flexibility as machining and production equipment."

Parts are produced on the numerical control machines with almost unbelievable accuracy and repeatability. Templates for plaster mockups have been held from minus 0 to plus .0005 of accuracy.

Convair is a "pioneer" in the field of numerical control, has had machines in use for about three years at Fort Worth and San Diego.

In that time, according to Conrad Kunze, assistant SD manager-operations, "The learning curve has progressed to the point where nearly all of the 'bugs' have been eliminated and numerical control is a reliable and dependable tool."

Much of the progress at SD is attributed to a training program which has produced skilled programming, maintenance and production people.

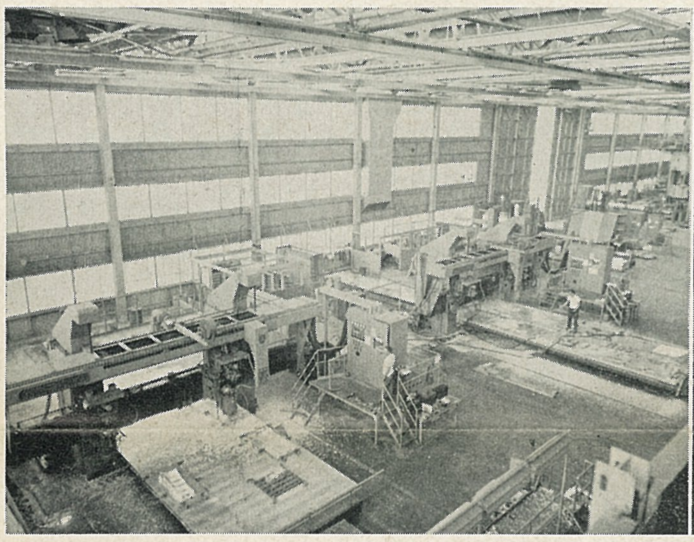
Skilled personnel are needed to program the taped "brains" used by the machines. The numerical control group at SD (Dept. 400-3) converts data from engineering drawings to symbols and codes. This basic data is transferred to key-punch cards, then processed into manuscript by the 704 computer.

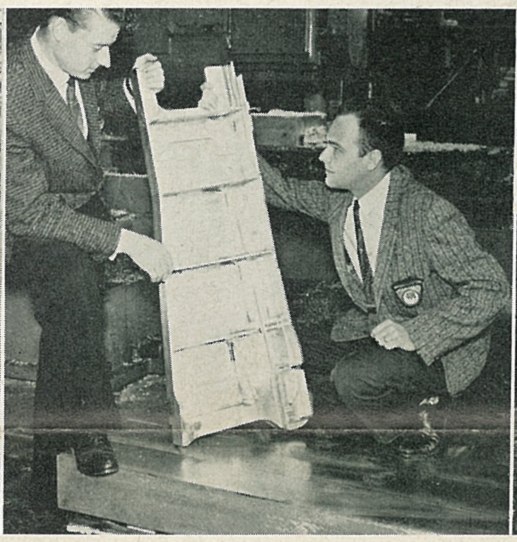
Convair SD was first in U. S. to turn out a numerically-controlled production part. Counting SD, FW, Pomona, and Astro, each of which has numerical control equipment, Convair is the largest single user of the tape-guided machines in the country.

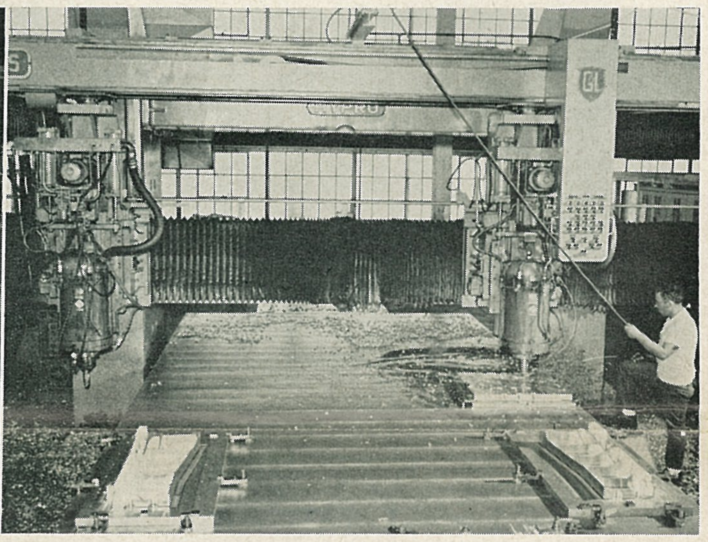
According to H. W. Buckner, SD computer group engineer, more computer sub-routines (additional "instructions" to the machines) are now being developed that are expected to greatly reduce tape preparation cost and lead time.

In the Plant 2 director center at SD, manuscript information is converted into time-controlled electrical signals on paper tape and from there onto magnetic tape. This magnetic tape is the "brain" fed into the machine's control unit that guides its every movement until the part is finished.

Recorded "brain" tape on file at Convair SD would stretch from San Diego to San Francisco, a pretty long memory in anyone's book.







TOOLING "MAGIC"—Convair FW and SD led other operating divisions into field of numerical control tooling. Convair Fort Worth leads in number of machines, but SD's Plant 2 has progressed considerably during past three years. At left is major concentration of SD numerical control equipment in Bldg. 2; in center photo, H. G. Cooper, project engineer, and Ken Brown (Dept. 400-3) examine one of first finished "box beams" for 600 jetliner (526-lb. billet at bottom of photo was original size and shape of "box beam" before numerical control tooling); at right is "skin mill" in operation, working on third "setup." At times, depending on size, the "mill" can churn out six, seven parts in row without stopping. Convair SD was first in U. S. to turn out numerically-controlled production part.

Vacuum Device Sucks up Chips, Keeps Milling Machines Tidy

Milling machines that clean up after themselves are keeping manufacturing areas at Convair FW spic and span, and at the same time saving hours formerly spent by machine operators in cleaning up metal chips and shavings.

The cleaning mechanism is a vacuum hose attached directly to the cutting edge. Chips are sucked up through the tube, cut up in a "chip chopper," and deposited in a bin outside the building. Then they're ready for pickup by the salvage company which buys scrap metal.

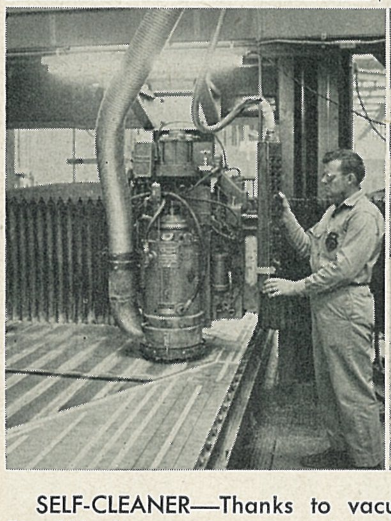
The vacuum was designed and built in the Convair FW plant.

Just as an idea of what a valuable aid it will be: two skin mills alone throw out 24,000 pounds of chips a month.

Mail Handling Unit Gets New Location

Shipping and receiving function which handles mail and cargo to off-site locations of Convair SD is now located in the same area as the engineering test base office.

The shipping operation, maintained for in-plant shipments to Palmdale, Edwards, and Holloman, moved south down the hall from its former Bldg. 4 area. Supervisor of test base office activities is W. S. Rees.





SELF-CLEANER—Thanks to vacuum device, milling machine at Fort Worth now cleans up after itself. At right is C. R. Brague of Dept. 30 with machine before installation, while at left is R. L. Hodges demonstrating machine as it operates now. Device was designed and built at Fort Worth.

'Lost' Bond Arrives Years Late, But Safe

Mrs. Ella R. Tongate, former Dept. 73 employee at Convair FW, has received a $50 U. S. Savings Bond she had forgotten she owned.

Seems the bond was "misplaced" by the Post Office from 1954 through this March.

Mrs. Tongate had a $50 bond deducted every month she worked at Convair, from 1943 through 1958.

"At the time, I was aware of not receiving one of my bonds," she said, "but I never did anything — and eventually forgot about it."

H. R. Bean, FW payroll supervisor, was surprised too. "Longest delivery time for a bond I can recall," he said.

Carr Convair Entry For Toastmasters Annual SD Contest

Convair Toastmasters Club #457 will host eight other San Diego Toastmaster Clubs in Area 5 at the annual humorous speech contest next Monday (April 18).

Representing the Convair group as contestant will be James Carr of Astro, newly-elected president of the club. Winner will go to the district contest.

Clubs competing in the Monday contest are High Noon, Naval Station, Naval Training Center, Padres, San Diego #7, San Diego Club, Solar, Walter Scott, and Convair.

Arrangements for the area competition, which will follow a 7:30 p.m. dinner at Midway Chuck Wagon, are in charge of L. G. Lawson, general chairman.

'Deep Freezer' to Refrigerate Parts For 600 Pod and Pylon

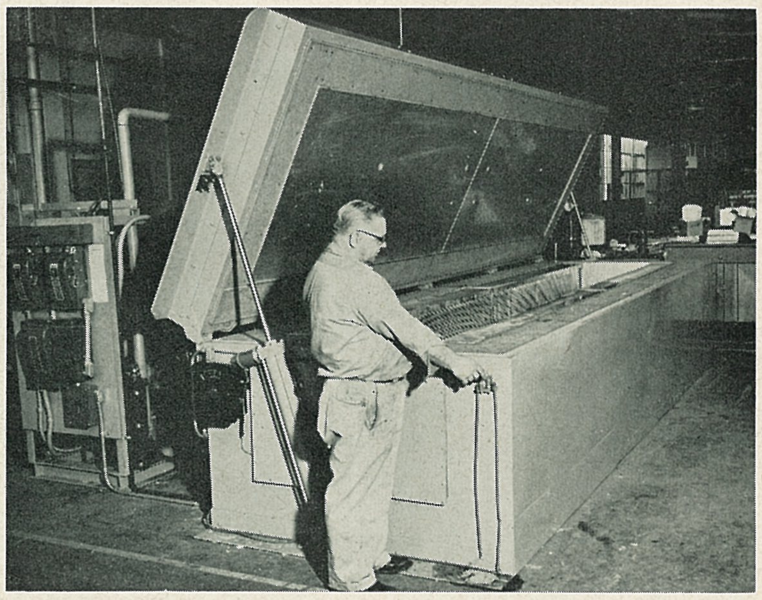
A huge "deep freeze" unit is being checked out in Bldg. 1 at Convair San Diego Plant 1 to refrigerate metals to be used in Convair 600 jet transports.

Exotic stainless steels which will go to form the 600's pod and pylon assembly need to be refrigerated following heat treat for better tensile strength, explained SD engineers. Extreme cold helps in transformation of metal during processing of parts before aging.

The 18-foot long box can hold 500 pounds of material at one time. Temperature can be brought down from room temperature of about 70 degrees F. to minus 150 degrees in an hour. The metal is left in the arctic cold for another hour.

Among other uses would be shrinking of shafts to decrease them in size so, that when expanded again to room temperature, they would fit tightly.

The unit was diverted to Convair SD from the discontinued F-108 program. It is now undergoing certification tests in Don Bryson's welding and processing department.



"DEEP FREEZE"—Leo Niemet of SD Dept. 102 exposes interior of huge refrigerator unit in Plant 1 welding and processing department which may "cool off" metal to go into Convair 600 assemblies.

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SAN DIEGO, POMONA, ANTELOPE VALLEY, VANDENBERG AFB, CALIF. AFMTC, CAPE CANAVERAL, FLA., FORT WORTH, TEX.

Naish Warns On Low Cost Competition

Convair is currently facing "some of the fiercest competition we have ever seen," J. V. Naish, Convair president and senior vice president of General Dynamics Corporation, told members of the Convair Pomona Management Club April 8.

Rapidly advancing technology—the changeover from manned aircraft to missiles and entry into the commercial jet aircraft field—is having a revolutionary effect on the airframe industry, he said.

"We are in a dynamically moving type of industry and frequently we have no paths to guide us. Many of the tools we build today are obsolete by tomorrow's advancing technology.

"The tremendous cost of research and development, especially in the field of commercial aircraft, has resulted in the lowest average profit for the aircraft industry in its history."

Competition from abroad, where labor costs are far less than those in this country, is also on the increase, Naish pointed out. Imports have increased by about 50 per cent during the past 10 years, without a proportionate increase in exports.

"Last year, for instance, exports amounted to about $15 billion, while imports were approximately $14 billion," he said. "While this would appear to give us a favorable balance of trade, the figures do not reflect other drains, such as foreign aid and NATO assistance, amounting to some $4 billion. When these things are added up, we have a serious deficit.

"I do not mean to imply that there is anything immediately ominous about this situation, but the long range picture gives us occasion for worry. We have historically been able to surpass the rest of the world because of our wonderfully inventive and

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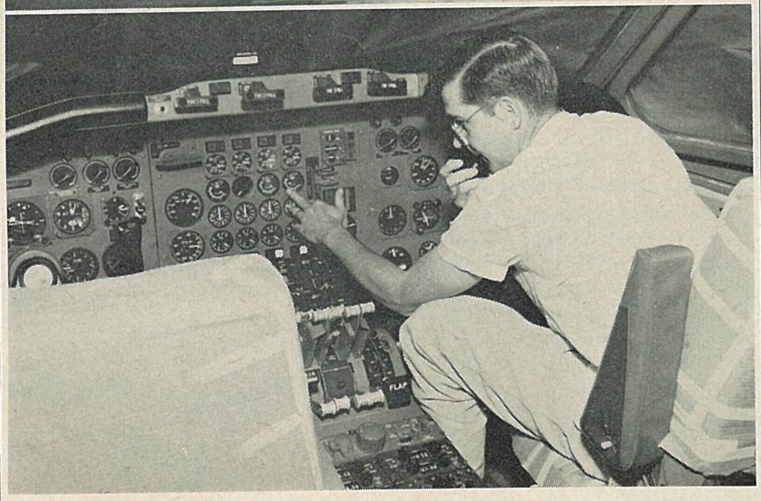
1,000 Bond Buyers Added by Convair SD

Convair San Diego added more than 1,000 U. S. Savings Bond buyers this month and raised participation in purchasing by payroll deduction to about 55 per cent.

Up until late last week, 1,044 who had not been buying bonds prior to the April 4-8 campaign returned cards authorizing deductions.

The average weekly deduction for San Diego's 11,137 bond buyers is $9.57.





FINAL TOUCHES—At top, Henry Coronado of Convair SD Dept. 160 stencils last signs on No. 11 Convair 880 in preparation for its delivery to Delta Air Lines. In lower shot, Jack Powell of Dept. 171 calibrates engine exhaust gas temperature in plane's cockpit. No. 11 will be first plane to receive FAA certificate of airworthiness.

Certification Near As 880 Completes 'F & R' Test Flying

A red letter day nears for Convair 880 jet transports with Federal Aviation Agency certification for passenger service due within the next few days.

Convair basic 880 airliners are slated to receive the "certificate of airworthiness" by May 1.

This week the three 880s, which have been in FAA certification checkout flights since last fall, will wind up their flight program. Plane No. 4 climaxed the functional and reliability flights last week with a non-stop hop from Los Angeles to New York City. Plane No. 1 completed TWA auto pilot testing and No. 3 is finishing landing and takeoff tests for FAA certification following high-altitude landings and takeoffs at Albuquerque, N. M., this week.

As the F&R flight program came to a close, R. L. Runnalls, commercial project group engineer, commented, "The functional and reliability program was completed right on schedule. Performance and functional capability of the 880 jetliner were demonstrated in a most satisfactory manner.

"Maintenance delays throughout the program were rare, resulting in an unusually high utilization time on the plane. In fact, at times it was difficult to provide crews to keep the plane going."

Thirty Convair, FAA, General Electric, and TWA people were aboard No. 4 on its 5,400-mile cross-country cruise. The nonstop hop to New York by way of Albuquerque, Tulsa, and over southern Indiana was "uneventful," in the words of flight engineers. Pilot W. D. Carrier kept the plane at reduced cruise power to demonstrate long-range cruise capabilities.

Co-pilots were P. M. Prophett and Lauren Pilling. C. L. Johnson and J. L. Fogleman, flight engineers, and R. J. Palk, flight test engineer, completed the crew on the plane's last whirlwind F&R trip.

The next day, Tuesday, was a busy one for both No. 4 and those aboard.

(Continued on Page 2)

Half Million in Savings Seen For Value Control

Savings of half a million dollars to Convair San Diego may result from recommendations coming out of the first value control seminar conducted at the SD operating division.

First in a series of value control seminars to be held at SD during the year, the two-week session concluded April 12. Twenty Convair SD men from electronics, engineering, purchasing, tooling, and operations were chosen for indoctrination in principles of value control by lectures and workshop projects.

A. C. Esenwein, Convair executive vice president, in opening the seminar, stressed the importance of value control as an organized attack on poor values in any product, system, procedure, practice, or method of manufacturing in relation to cost.

"In today's highly-competitive business conditions, we must deliver the best value at the least possible cost," he emphasized.

First Convair SD men to join efforts in a value control seminar were divided into teams of four during workshop periods. Each team was given a definite project—aircraft or missile part or assembly—to evaluate.

S. R. Carpenter, SD value engineer, explained that every article is examined with the fundamental questions in mind: What is the part? What is its function? What does it cost? What else will do the job and what would that cost?

"Through value control thinking we sweep away preconceived ideas and stereotyped approaches," explained Carpenter. "If we keep our heads in the jungle, we can not see the problem. We must blast it away to find a solution."

Team reports on the five projects made at the closing seminar session showed that $509,200 in actual dollar savings would be possible by elimination of nonworking costs on the projects under consideration.

In awarding certificates of recognition, Conrad Kunze, SD assistant manager-operations, said, "To say I am impressed is an understatement. I assure you that the results from this seminar will be given the most serious consideration."

Coordinating and instructing the seminar were Carpenter, D. S. Clark of educational services, W. D. Lavis of operations, and R. W. Hardy of material.

E. D. Heller, value control coordinator at Convair Pomona, made the initial presentation. Convair Pomona has conducted two such seminars this year and a pilot session last December.

Participating in the Convair SD course were: C. A. Ives, Otto

(Continued on Page 2)



RECOGNITION—Conrad Kunze, Convair SD assistant manager-operations, hands certificate to Max Taylor of engineering and 19 other members of SD teams at close of first two-week value control seminar at San Diego.

Frank Pace Joins Board of Time Inc.

NEW YORK—Frank Pace Jr., chairman of the board and chief executive officer of General Dynamics Corporation, last week was named a member of Time Inc. board of directors.

A joint announcement from Time Inc. Editor-in-Chief Henry R. Luce and President Roy E. Larsen, following approval by the board, noted:

"It is a pleasure to announce that Frank Pace Jr. has accepted our invitation to join the board of directors. His wisdom, knowledge and experience will greatly strengthen the Time Inc. board."

Lawson Faces McMenamy in Club Election

A new political season was ushered in with comparative quiet by Convair SD's Management Club at a meeting last Thursday.

Nominated for the club presidency were L. G. Lawson (Dept. 188-1) and C. F. McMenamy (Dept. 6-21). In short campaign speeches, each candidate made a simple, direct appeal for votes, promising to fill the office of president to the best of his ability.

T. G. Lanphier Jr., who resigned as Convair vice president March 15, was principal speaker. He discussed the present defense picture of the U.S.

Lanphier's address was heard by a full house of 600 club members who packed the Palm Room of the U. S. Grant Hotel.

J. L. Terrien, chairman of the nominating committee, roll-called a slate of 26 candidates up for six club offices and Board of Control posts. Two men were also nominated from the floor. Election results will be announced at a club meeting May 18.

Lawson will be making his second bid for the club presidency. He was narrowly defeated for the office last year. During the past year he has chairmanned the "Mug of the Month" committee.

McMenamy has filled a number of club posts, is presently the group's second vice president.

Also sharing the meeting spotlight were two MacSave-it winners, N. R. Keough (Dept. 31) and E. R. Hockert (Dept. 34-5). V. A. Petricola (Dept. 8-1) received the "Mug of the Month" award.

Introduced at the meeting were members of the 460th Fighter Interceptor Squadron, top-scoring

(Continued on Page 2)



CAMPAIGNERS—C. F. McMenamy (left), Dept. 6-21, and L. G. Lawson, Dept. 188-1, rivals for SD Management Club presidency, campaign with cigars and electric cart for benefit of cameraman.

Certification Nears For Jet 880 As 'F & R' Flight Testing Ends

(Continued from Page 1)
J. F. Woodall, SD acoustics group engineer, arranged a demonstration on the takeoff from Idlewild airport for appraisal of 880 noise level by Port of New York officials. Continuous recording microphones in the takeoff flight path picked up noise from the 880 engines during a normal takeoff, climbout to a given altitude, and reduction of power for continued flight over residential areas until normal climb power was restored.

Then the plane went on its way to Baltimore, Md., landing there at 9:50 a.m. An hour and a half round-robin flight out of Baltimore demonstrated flight and handling characteristics for FAA inspectors from the Washington, D.C., office. The group was headed by C. W. Von Rosenberg, chief of the FAA flight test section.

No. 4 left Baltimore in the afternoon for its return trip to the West Coast, landing en route at Denver, Los Angeles, and home to San Diego.

"After chasing icing conditions all over the Pacific Northwest and Alaska, we ran into just what we'd been looking for in the climbout over the Rockies out of Denver," said Runnalls. "And, the anti-icing system triggered just right!"

No. 4 landed in San Diego on its 113th F&R flight after totaling 154 hours and 55 minutes in the air during the program.

Plane No. 4 will go into a well-deserved rest and recuperation period following final tests on radio noise and passenger oxygen system this week. After a thorough refurbishing it is slated for eventual delivery to Delta.

Plane No. 1 now is in modification to the 880-M version for Capital Airlines.

Delta Air Lines crews are due at Convair San Diego this week to take delivery on two more 880s, Nos. 11 and 16. A Delta crew returned the airline's first 880 to San Diego last Wednesday for installation of latest production items. Convair 880s will be flying their first runs as ticketed passenger carriers over Delta routes next month.

Lawson Faces McMenamy in Club Election

(Continued from Page 1)
F-102 team at the Air Force William Tell Weapons Meet in October.

Col. Younger A. Pitts, squadron captain, said the F-102 is the "backbone of the air defense business today and is carrying the brunt of the load."

The meeting was the last presided over by S. L. (Lee) Shipstead, Management Club president, who announced his transfer to Astronautics. He received a gavel and plaque from the National Management Association. T. H. Chadwick, first vice president, will handle duties of the office until the new president is elected.

In the running for office of first vice president are R. W. Dill (Dept. 5-0), P. A. Hamm (Dept. 8-3) and W. M. Holland (Dept. 216-0).

The post of second vice president will be filled by B. T. McMicken (Dept. 137-0), W. S. Nader (Dept. 140-0) or C. W. Pharis (Dept. 192-7).

Nominated from the floor for first vice president was W. A. Schurr (Dept. 6) while E. R. Fink (Dept. 25) was nominated from the floor for second vice president.

Candidates for recording secretary are M. B. Fuhrmann (Dept. 180-0), R. M. Montgomery (Dept. 21-0), W. R. Kemper (Dept. 292). New club treasurer will be either C. L. Ambler (Dept. 3-3), R. D. Gowdy (Dept. 101-0), or J. J. Jodka (Dept. 93-6).

Three candidates were announced for financial secretary. They are R. A. Davis (Dept. 218-0), R. E. Gunnerson (Dept. 91-0) and E. V. Laird (Dept. 8-1).

Four of the following will be elected to one-year terms on the Board of Control. Candidates are G. R. Bailey (Dept. 197-4), C. H. Hahn (Dept. 8-4), E. W. Manning (Dept. 25-8), F. A. Rosso (Dept. 14-1), L. E. Roth (Dept. 230-0), M. C. Tombler (Dept. 6-21), A. M. Van Horne (Dept. 400-1), and G. H. Wilson (Dept. 231-0).

A two-year term on the Board of Control is the goal of D. R. Bryson (Dept. 102-0), J. A. Gliebe (Dept. 218-0), and S. W. Swenson (Dept. 6-51).

Naish Warns On Competition

(Continued from Page 1)
ingenious concept of progress. We have created a tremendous consumer demand at home by our high standard of living.

"But we do face a great new danger. We have been giving foreign nations our technological know-how so that the equalizing factor of this technical superiority is gradually being cut down. On the other hand, the standard of living and the related low cost of labor in foreign nations are now enabling them to make products competitive to ours in quality and substantially lower in cost because of this lower wage situation.

"Therefore, it is self-evident that cost reduction is not only a Convair problem but a national problem if we are to compete successfully in the markets of the world."

Free Ticket Draw Opens

Free tickets to San Diego Padres baseball games will go to winners of CRA's second drawing which opens today (April 27) and closes Friday (May 6) at 3:30 p.m.

Tickets will be good for Westgate Park games, between May 13 and 18, with Tacoma and Sacramento. Each drawing winner will receive two tickets.

One entry per person is allowed. To enter, SD baseball fans should write name, clock number, shift, department number, location and telephone extension on a slip of paper.

Boxes are located in employee services, Plants 1 and 2; at Rose Canyon, in the office of Virginia Cannon, ext. 2125; Fordham St., office of Bessie Cooper, ext. 100; and at the ramp, in the office of Ralph Sachs, Bldg. 37, ext. 425.

Astro Expands At SD Plant 2

Convair this month is completing plans to turn additional manufacturing and office areas at Convair San Diego's Plant 2 to Convair Astronautics.

Astronautics, now utilizing about half of Bldg. 3 at Plant 2, is set to take over most of the remainder of the building. In time, Astro will occupy all of Bldg. 3 with the exception of small mezzanine areas retained by Convair SD.

Bldg. 3 will be used by Astronautics to conduct Atlas tank manufacturing operations now centered in the Astronautics factory (Bldg. 5) at the main Kearny Mesa site.

Astro is also planning to vacate the present Barnard School facility, transferring personnel now working there to Bldg. 4, Plant 2. This involves the majority of Astro's customer training operations. Bldg. 4 is presently being occupied by both Astro and San Diego personnel. The former holds most of the second floor. By the end of the year Astro will occupy all of Bldg. 4 except for a small ground floor area at the south end of the building.

The Barnard School move begins shortly after the first of June and will be concluded before the end of June, lease expiration date at the facility.

Convair San Diego is shifting its F-106 assembly line from Bldg. 3 into Bldg. 2. This program will be completed by the first of July. It involves the buildings in the "C-D" and "D-E" bay areas.

In early June Astronautics will begin to prepare this area for future Atlas tank manufacture facilities. New government capital equipment totaling over $600,000 will begin arriving in June with deliveries scheduled until August. Installation will begin upon arrival with final completion set for September.

Relocation of present tank manufacture tooling and facilities to Plant 2 will start in September, continuing until February, 1961.

"Plans for this operation have been formed over the past year with close coordination allowing us to continue production without interruption," said C. B. Marvin, Astro's master move committee chairman.

Astronautics personnel from Dept. 758 under General Foreman Lee Ely will man the new manufacturing area. They will be supported by inspectors, manufacturing control and other groups.

In general, the relocation will affect employees involved in the welding and assembly of tank bulkheads, constant skins, taper skins and assembly of the major tank.

Half Million in Savings Seen

(Continued from Page 1)
Loven, Ed Witek, Max Taylor, John Workman, H. B. Farrar, all of SD engineering; P. G. Peninger, D. L. Macey, C. L. Mattes, I. S. Leon, and F. T. Puryear, all of Dept. 4, purchasing and materials; D. H. Sandin, C. W. Stafford, R. V. Cutler of Dept. 400, tooling; R. H. Brown of Dept. 280; G. O. Couchman (Dept. 232); W. E. Gleason, W. S. Bailey, R. J. Frendt, and W. G. Bjornson, of SD electronics.

Heading up Convair SD value control efforts is R. P. White, assistant chief engineer-product design, recently named value control coordinator. On the SD steering committee are Kunze, T. J. Sullivan, SD assistant manager-contracts, customer service, and material; W. W. Fox, chief engineer; D. C. Burrows, SD controller; D. B. Acker, manager of industrial relations.

A condensed version of the value control course opens tomorrow (April 28) in the SD engineering auditorium.

★ Convairiety ★

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SD Editorial Offices, Building 32, Plant 1, ext. 1071. Staff: Grayce Fath, Helen Pemberton, Fred Bettinger.

Astronautics Editorial Offices, Bldg. 8, Astro site, ext. 3322. Staff: Bryan Weickersheimmer, news editor; Alyce Martin. News contacts: AFMTC, Evelyn Poole, ext. 4011; Warren AFB, Bill Jack, ext. 7-2254. Offutt AFB, David Reichenbacher, ext. 264, Cherry Gocken, ext. 348.

FW Editorial Offices, Col. 73C, ext. 2961. Mailing address: Convairiety, Convair, Fort Worth, Texas. Telephone PErshing 8-7311. Staff: Dave Lewis, news editor; Susan Bagby, Mary Beck.

Pomona Editorial Offices, Room K-222, Bldg. 2, ext. 6226, mail zone 3-8. Staff: James Combs Jr., news editor; Dorothy Keller.

Antelope Valley Editorial Office, Room 103, Bldg. 301 B, Palmdale, ext. 337. Staff: Richard L. Millett.

Electronic Engineers Sought As SD Begins Recruiting Drive

Electronic engineers at Convair SD are being invited to recommend their friends in a new recruiting program for SD electronics.

"We now have a definite need for qualified engineers and physicists within our expanding electronic organization," explained R. E. Honer, manager of SD electronics. "And we feel that the personal touch is important in obtaining good people for our needs."

Mailing folders have been placed in boxes spotted throughout the SD electronic area in Bldg. 51 at Plant 1. Convair SD electronic people are asked to pass the folders on to their friends in the electronic engineering field to use as applications for positions here. (Incidentally, the San Diego Civic Center scene decorating the folders is from an original painting by Sammy Pasto, Convair SD artist.)

The stamped, addressed folders are sent directly to M. C. Curtis, engineering personnel administrator, for processing. All information is held as confidential.

"Many of our best people have come to us through employee referral," said Curtis. "We know that those joining the company through the recommendations of their friends have not only been of the highest caliber of employees but have been most satisfied with their company connections."

The folders available within the plant are the same forms used by Convair SD as inserts in April issues of several technical journals. Scientific American, Microwave Journal, Physics Today, Space Aeronautics are all carrying the inserts in their April editions.

A test run of the application inserts was tried successfully last year in Aviation Week by Convair SD, explained Curtis. Since then, other Convair operating divisions have adopted this type of advertising for specialized people.



FOR A FRIEND—V. F. Hager, Dept. 7 associate engineer at Convair SD, takes application folder from Merle Curtis, engineering personnel administrator, to pass on to qualified acquaintance. At right, R. E. Honer, manager of SD electronics, approves new recruiting aid.

Convair SD Son and Daughter Win Annual Scholarships

Maryann C. Milis and Dennis C. Bunde have been named winners of the 13th annual scholarship awards given by Convair SD Management Club.

Maryann is the daughter of Steven R. Milis, design engineer in Dept. 6. Dennis is the son of Philip C. Bunde, also of Dept. 6.

"All of the applicants for this year's scholarships were exceptionally high in both scholarship and activities," said H. E. Mayer, committee chairman. "Their outstanding records made the final decision by the committee extremely difficult."

Both of the winners will receive $1,000 in four payments of $250 each to go toward their education at a college or university of their choice.

Runners-up who will each receive a $100 Savings Bond are Judith E. Johnson, daughter of Edgar L. Johnson (Dept. 401); Maureen L. Stuckey, daughter of Lloyd C. Stuckey Jr. (Dept. 188); Rory Van Tuyl, son of Robert Van Tuyl (Dept. 6); and Robert B. Maddow, son of Gertrude Maddow (Dept. 6) and Bernard Maddow (Dept. 7).

Judges, who made the final choice after interviews April 20, were Dr. E. G. Aiken of California Western University, J. H. Stephenson of San Diego Junior College, and Miss Kathryn M. Markey.

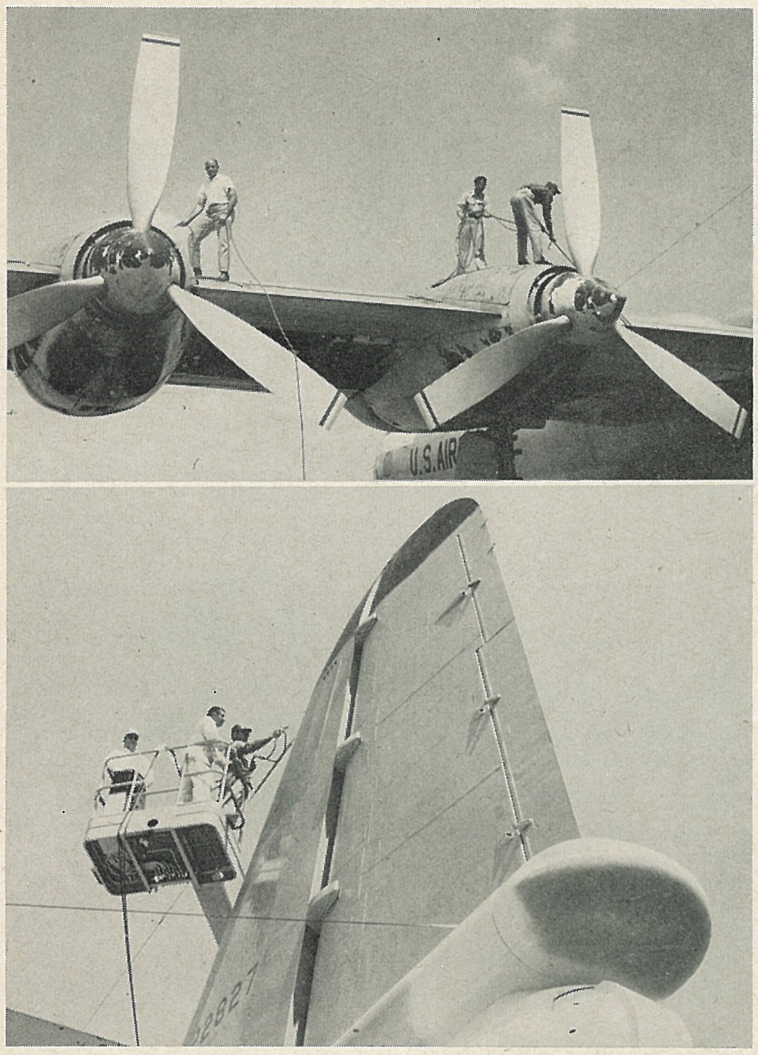
Presentation of the awards will be made at the May 18 Management Club meeting when the scholarship winners, their parents, and school principals will be honored guests.

Committee in charge of the 1960 contest was Mayer, C. T. Boyle, M. L. Sweeney, R. J. Obrochta, Frances Collier, L. E. Woll, C. O. Ekrem, G. K. Cox, and G. H. Woodberry.

Is It News? Call Convairiety



WINNERS — SD Management Club scholarship committee, judges, and six winners line up in front of F-106 after April 20 session which decided top two applicants.



SPRUCING UP—Convair FW volunteers recently turned out to spruce up memorial B-36 which is permanent exhibit at Amon Carter Field near Fort Worth. It was full day's job to clean and spray airplane. More than 90,000 have visited B-36 since it was placed on display last year. FW Management Club members are responsible for upkeep.

New Shock-Driven Wind Tunnel at SD Rated For Speeds From Mach 7 to 25

A new facility at Convair San Diego soon will be in operation making tests which may decide design of ballistic missiles and orbital vehicles of the future.

The $400,000 shock-driven wind tunnel known as Convair Hypersonics Laboratory, recently completed at the SD seaplane ramp, has been designed to simulate flight conditions which can not be duplicated in any other existing Convair facility.

"Complete simulation of hypersonic flight conditions over a large operating 'envelope'—with simultaneously related pressures, temperatures, and speeds—now can be produced," explained K. C. Hendershot, aerodynamics engineer in charge of the facility. "This will greatly expand our ability to create flight conditions which will be encountered by high-speed, high-altitude vehicles, either manned or unmanned. It will be particularly important in determining design criteria for reentry bodies, such as missile nose cones and hypersonic glide vehicles."

Range of operating conditions possible in the new wind tunnel are Mach 7 speeds at near sea level up to Mach numbers of 25 (approximating 18,750 miles per hour) at altitudes of 350,000 feet. Top capability of the Convair high speed wind tunnel, in comparison, is Mach 5 speed without temperature simulation.

Housed in the 75x30-ft. building, constructed especially for the facility, is the shock tube "gun." A gaseous mixture of helium, hydrogen, and oxygen is exploded within a combustion chamber to send a shock wave through the 50-ft. long barrel. The shock wave compresses the air within the tube against a plastic diaphragm at the end. At the bursting of the fragile lid, the high temperature volume of air flows into the cylindrical vacuum chamber, 57 ft. long and 10 ft. in diameter, and over the models under test.

Models attached solidly to a table within the tank are subjected to extreme atmospheric conditions for just a flash—not more than a couple of milliseconds, two one-thousands of a second, of time. (Addition of a cone-shaped nozzle is planned to extend the run duration to at least five milliseconds.)

In the wink of an eye 23 oscilloscopes in the control room are recording surface pressures and temperatures and a Beckman-Whitley framing camera is snapping pictures of the model at a rate of over 1½-million frames per second.

About 80 frames can be shot in the infinitesimally short run duration. Photographs of shock waves and flow patterns are taken on 35 mm. film through a periscope system of mirrors set up to reflect the model through the portholes of the tank.

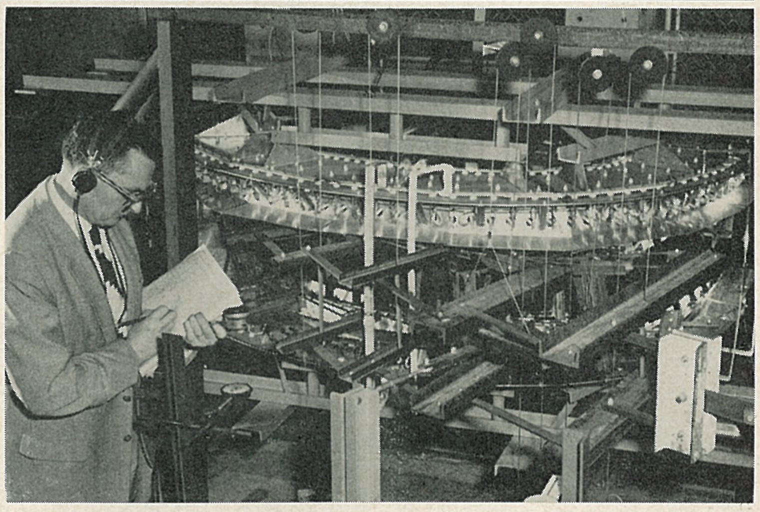
"The shock waves will be so hot," said Hendershot, "that they will actually glow from the luminosity of the gas. This will make them clearly visible on negatives and prints from the film shot with the huge stationary camera."

The equipment is being calibrated for the start of actual tests within the next couple of months. Models of hypersonic glide vehicles will be tested at reentry conditions under a company-sponsored project.

The facility, under direction of Dr. H. Yoshihara of the SD aerodynamics engineering group, was constructed as a thermodynamics laboratories program. Dr. Z. Slawsky, in charge of a similar facility at the Naval Ordnance Laboratory, Silver Springs, Md., provided design information and acted as consultant during construction of the Convair shock-driven wind tunnel.

Convair's Hypersonics Laboratory will be available for testing programs of other Convair operating divisions, said Hendershot.

Present crew at the facility includes three engineers and four technicians. Engineers are Hendershot, Riley Cruse, and Robert Drowns. Technicians include Walter S. Alcaraz (Dept. 6), De Forrest Conklin, Frank Williams, and William Grant, all of Dept. 31.



HOT "OVEN"—G. D. Lindeneau of Convair SD structures laboratories checks temperatures of radiant heat oven at SD lab facility during "baking" of titanium aircraft frame part.

Volunteers Spend Day Cleaning Memorial B-36 For Visitors

It was "spring housekeeping" Saturday, April 9, for the last of the B-36s.

Peacemaker No. 383, now memorialized at Fort Worth's Carter Field, was put in spic-and-span order by Convair volunteers anticipating a deluge of summer visitors.

About 60 hourly and salaried employees from Depts. 20, 25, 64 and 74 volunteered their day off to help in this Convair Management Club-sponsored affair.

The famed B-36 will be open to the public for inspection on a new schedule, 2-6 p.m. Saturdays and Sundays.

"Over 90,000 people have visited the B-36 since it was put on display last year," according to Sam Keith, head of the B-36 memorial committee.

Keith and B. R. Main served as co-chairmen of the sprucing-up job.

The project got under way about 8 a.m., with volunteers swarming all over the giant bomber with paint brushes, spray machines, and plain soap and water. The job was completed about 6:45 p.m.

Personnel from traffic were on hand at the crack of dawn—about 5:30 a.m.—to set the stage for the operation.

No. 383 was immortalized at Carter Field last year, following a much-publicized flight from Biggs AFB in El Paso.

Shortly thereafter, the city of Fort Worth and the Carter Foundation conceived the idea of placing the famous Peacemaker on permanent display.

Concrete Poured For Cafeteria Wall and Roof

Construction on the new cafeteria building going up at Convair San Diego will reach the half-way mark soon.

H. A. Smith, SD chief plant engineer, said that the shell of the building will be completed and installation of interior parts will start soon after the first of May.

Concrete for the west wall and the roof was poured last week. Work has now started on installation of plumbing with other interior work including plaster, ceiling, duct work, electrical wiring, kitchen equipment.

The portion of the overpass that leads to Bldg. 19 will be rebuilt by the middle of next month and opened again to traffic by the middle of June, Smith said.

The new cafeteria is slated to go into operation the first part of July.

Fierce Heat Produced by Speed Simulated in Radiant Ovens

Test engineers at Convair San Diego structures laboratories are going into the cooking business.

Before long, five ovens will be "baking" airplane parts at temperatures up to 900 degrees F. in the large laboratory building at the SD seaplane ramp. Under a program to evaluate new titanium alloys and manufacturing methods proposed for high-speed craft, the SD structures lab is building a battery of radiant heat ovens.

Each oven will be of a different size and shape to accommodate each individual part under test. First in operation is a large semi-circular one for test of an airplane frame section. Top and bottom sections close like a clam shell over the specimen. Six power channels conduct 600 volts of electricity to the 120 lamps around the oven, half on the top and half on the lower section. Aluminum reflectors intensify the extreme heat directed onto the titanium part.

It takes an hour to distribute each 100 degrees of heat evenly throughout the part, explained G. D. Lindeneau, structures test lab engineer. The titanium specimen has, so far, withstood 20 hours of the high temperatures in static tests and now will be going into fatigue testing. Loads are applied at different temperatures to see how much punishment the part can take.

Thermocouples connect the test part to the control board of the DAISY (Data Acquisition and Integration System) in the lab's control center for recording of temperatures.

Other type ovens are being built for testing of a leading edge, duct, shear and compression panel for wing surface, and tail cone.

Testing is under the supervision of E. Schiff, structure test lab assistant group engineer.

Memberships Open For Toastmasters

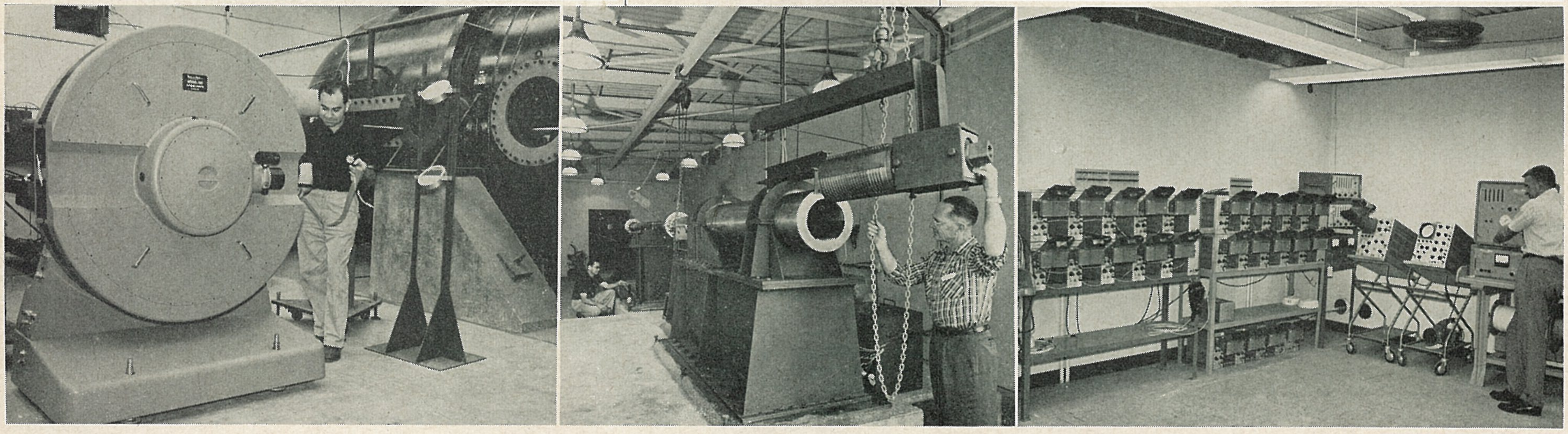
Memberships are now being welcomed from Convair SD persons in the Padres Toastmaster's Club, according to the group's recently elected president, R. D. Henderson (SD Dept. 15).

The Padres speakers meet the second and fourth Mondays of the month at the Haynes Streamliner, Oregon and El Cajon. For information, contact Henderson, ext. 2733, Plant 1.

FW's Milt Stewart On State Committee

Milt Stewart of FW employee services has been appointed Johnson County, Texas, representative to the governor's committee for the White House Conference on Aging.

Stewart will serve as chairman of the income and employment division of the committee.



NEW FACILITY—At Convair's new inter-division Hypersonics Laboratory at SD seaplane ramp ballistic flight conditions can be duplicated for checkout of design for future space vehicles. In center, Frank Williams (Dept. 31) fits breech plug into end of combustion chamber which drives shock wave through 50-ft. barrel. At left, Walter S. Alcaraz, aerodynamics technician, threads film into high-speed Beckman-Whitley framing camera. Right shot shows control room with battery of oscilloscopes for recording pressures and temperatures. At far right is Riley Cruse, thermodynamics engineer in charge of instrumentation.



DECISIONS, DECISIONS—George Cole, left, SD service engineer on F-102, F-106 safety and performance, and A. R. Thompson, SD art editor in customer service publications, go over few of nearly 100 posters produced to needle Air Force personnel and promote safety.

Posters Needle, Tease But Air Force Likes 'em

For the past three years A. R. "Tommy" Thompson (SD Dept. 15-6) has been needling Air Force pilots and maintenance men—and they love it.

In fact, they're constantly asking for more. And Thompson obliges by kidding them right out of their flight jackets.

He heckles, teases, prods, goads, plays practical jokes. As Thompson puts it, "I'll do just about anything to catch their attention and hold it, so that they'll give more serious thought to saving their lives and caring for equipment."

Thompson combines talents of a cartoonist, layout artist, and writer to churn out posters stressing safety and performance.

The support project is conducted by SD customer service publications. Posters are displayed at far-flung Air Force installations where F-102 and F-106 jets are based.

And the campaign is paying off. George Cole, SD service engineer in charge of F-102 and F-106 safety and performance, credits the posters with saving many lives and hundreds of thousands of dollars in equipment.

Since the program began in 1957, Thompson has personally created cartoons and written jingles for 66 posters. As many more "rough" sketches and jingles are awaiting publication.

More than 240,000 of his posters have been displayed at one time or another at Air Force bases.

Thompson aims his maintenance posters at the airman, not the technical sergeant, uses service terms, GI jargon, steers away from any technical language or involved wordage.

Examples of Thompson's "light" approach in warning airmen to stand clear of engine intake duct areas:

"Stand clear of hungry intake ducts
Like you have been instructed—
Or long before your hitch is up
You'll find you've been 'inducted'!"

Or:

"When the engine's reving up . . .
It makes a mighty draft—
And anything not battened down
May end up in the craft!
—Including you!"

While the posters are not technical, they are factually correct. Each is checked against manuals, technical orders, engineering data and safety reports.

The posters are always aimed at critical problem areas. For instance, 31 canopies on the F-102 had been inadvertently jettisoned by ground crews. Thompson aimed some posters at the problem and during the next eight months not a single accidental jettison occurred.

"The important thing is that people read them if they're light and humorous," Thompson states. "They can carry an important message which might be overlooked in a more formal means of communication."

Convair Man Named Mayor of Everman

J. L. Neill, Dept. 24-6 at Convair FW, is the newly-elected mayor of Everman, Texas.

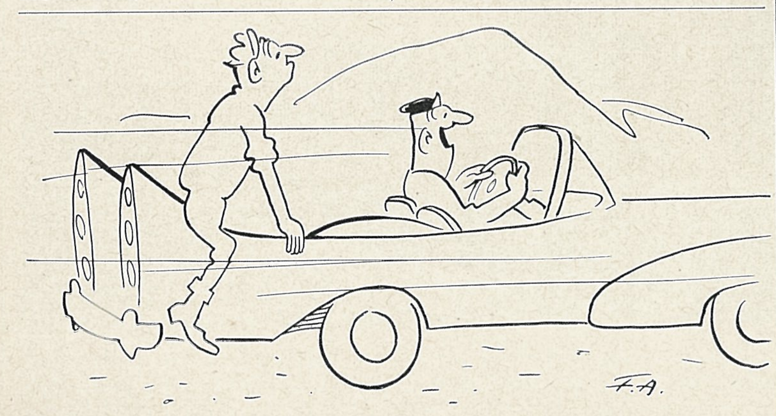
He will be at the helm of the 1,000-population town for a two year term.

Neill, who has three children who attend high school and junior high in Everman, has previously served on the council and was Everman's mayor about 10 years ago.

Monahan to Discuss High Energy Forming

F. A. Monahan, manager of manufacturing development and process specifications at Convair SD, will speak before the American Society for Quality Control at a Sands Hotel meeting at 6 p.m. May 9.

Monahan will discuss "High Energy Forming." Contact Eric Callard, ext. 3395, at Astronautics for tickets.



"How's that for fast take-off?"

Toastmistress Club Will Send Delegates To Regional Meeting

Delta Toastmistress members will have key roles at the coming Southwest Regional Conference of International Toastmistress Clubs June 10-12 at Hotel del Coronado.

Marge West (SD-Dept. 6-35), president of the Convair group, will give a speech, "Slurvian," on misuse of the English language at the June 12 brunch. She is also a member of the conference publicity committee.

Joyce Simon (SD-Dept. 1-71) is heading the transportation committee and Fran Leland (AF office), is conference coordinator and chairman of Council #7, hostess council for the event.

Expected to attend are about 1,000 Toastmistresses from the 184 clubs representing 13 councils in California, Nevada, and Arizona.

J. L. Carr Installed Toastmaster Prexy

Newly-elected officers of Convair Toastmasters Club #457 were installed at an April 2 dinner meeting at King's Inn.

A group of 40 members and their ladies saw J. L. Carr seated as new president; Tillman Schafer, administrative vice president; Ken Samples, educational vice president; Earl Patrick, treasurer; Duane Johnson, secretary; Don O'Neill, sergeant at arms.

Installing officer was A. L. Ricketts, president of the Solar Toastmasters Club.

Interested Convair SD and Astro men, who wish to learn more about the club, are invited to contact Duane Johnson of SD-Dept. 6, ext. 2240, Plant 1. Meetings are held weekly on Monday evenings.

Ellen C. Andreasen Will Go to Europe

Ellen C. Andreasen is leaving Convair this week for an extended tour of Europe.

Miss Andreasen, who has been secretary to C. C. Sawyer, assistant to the vice president-legal, since 1945, will leave May 11 by jet for Copenhagen. She plans to spend a couple of months in Denmark, native country of her family, before continuing to Norway and Sweden. She will visit England, Scotland, France, Spain, Italy, and Greece before her return.

She was active in the Convair Recreation Association for several years, serving as ballroom dancing commissioner since 1952.

Toastmasters Club Elects Convair Men

H. L. Clower of Convair Astro Dept. 322-1 and J. M. DeBevoise, Convair SD Dept. 6, have been elected to office in the North Shore Toastmasters Club.

Clower will serve as educational vice president and DeBevoise, administrative vice president, during the coming club year.

Convair men, interested in receiving training in public speaking, are urged to contact Clower at ext. 3560, Astro site, or DeBevoise, ext. 2366, SD Plant 1.

Extension Offers Engineering Course

Two courses in Engineering Fundamentals, one taught by James B. Herreshoff of Convair SD, are being offered by the University of California Extension at San Diego.

These courses are of special interest to men preparing for the examination offered by the California Board of Registration for Civil and Professional Engineers.

Information is available through the Extension office at BE-2-7321.



CAREFUL CLEANING—Astro son Franz Jaggar, left, and companion George Sharman take pains in extracting whale bone from beach cliff. Whale's jawbone was estimated to be one to 10 million years old and won Science Fair prize for boys.

Museum Piece

Boys Discover Whale's Jawbone In Cliff, Million Years Old

Extensive excavations by an Astronautics son and a companion have produced a science prize, a museum specimen and a house full of sand and "unknowns."

Franz Jaggar, 14, the son of Astro's Anne Jaggar (Dept. 183-1), and George Sharman, 14, are responsible for all three.

From early November through March the boys painstakingly extracted from a Pacific Beach cliff the segments of an eight foot section of the jawbone of a whale from one to 10 million years old. Identification and dating was from other specimens taken from the area and studied by the staff of the San Diego Natural History Museum.

The boys pieced their find together and entered it as a "Reclamation of a Fossil" project in the recent Science Fair. It won first prize in the junior division miscellaneous category.

Last year young Jaggar won a second prize for an electromagnetic rocket launcher.

The boys found the first piece of bone protruding from an oceanside cliff while hunting sea shells. They dug it up, then dug some more to see if there were other bones. There were. After taking out about 12 feet of the cliff they are still finding bones.

They carried some of their specimens to the museum and found encouragement to continue.

The Jaggar dining room became the collection point. Each operation involved slowly cleaning away sand and dirt with small brushes to prevent cracking brittle bones. Those that broke were glued together.

"Naturally, there was sand," Anne reports. "We swept it out of every possible part of the house."

Strangely enough, the excavation area attracted few spectators. Only once did they encounter trouble.

"We dug up this beaut of a bone, about a foot long," Franz said. "We laid it aside and left the area for a minute. Coming back we found it gone. We searched the neighborhood, asking every kid we could find. No one had seen it. The next day we found it at the bottom of the cliff. Some one had kicked it over."

After the Science Fair the boys turned their find over to the Natural History Museum where it is now on display, the largest whale jawbone there.

Members of the Museum staff are carrying on the excavation in hopes of finding the remainder of the whale's body.

* * *

Two other Convair youths were also among San Diego Science Fair winners.

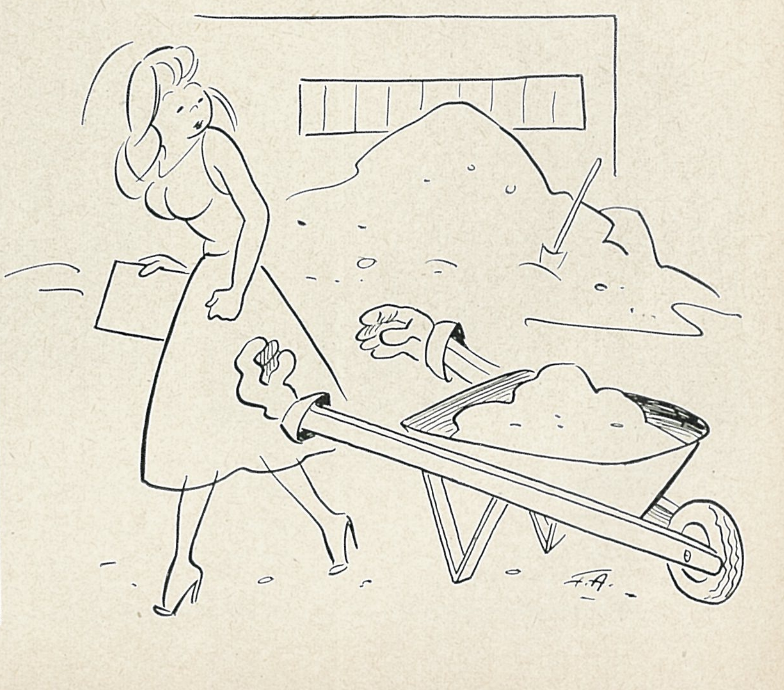
Top junior high school sweepstakes award went to John Wayne Hooper, 14, son of J. C. Hooper (SD Dept. 6). His exhibit was entitled "Excavation Around a Barn Owl Roost."

Ronald Schultz, 13, son of S. G. Schultz (Dept. 15) won a first award in the chemistry junior division. Fifty Science Fair winners toured Convair SD April 11. Other San Diego industries hosted similar groups.

Ryan to Represent Dynamics at Miami

Dr. James Ryan, Astronautics chief physician, has been named General Dynamics Corporation representative for a Miami meeting set for May 9-11.

This meeting is the annual gathering of Aero-Space Medical Association.



Hundred Given Special Training In Honeycomb Bond Techniques

New techniques and attitudes are being stressed at Convair SD as an extended series of training in honeycomb bonding processes gets under way this month.

Experts in the specialized field of honeycomb procedures have joined forces to work out a thorough course of instruction for Convair SD people who will be involved in the new process. Convair San Diego is entering the honeycomb bonding field on a production basis for the first time. A new department (Dept. 119) was formed recently for metalbond fabrication and assembly for Convair jet transports.

"Our prime objectives," said H. G. Rote, SD final and major assembly superintendents, "are to gain the knowledge, skill, and attitude necessary to build the best possible assemblies for our planes. We must attain the highest degree of quality at the most competitive prices and still meet our tight schedules."

SD educational services is setting up a series of courses which will extend into July. At least 100 men will be trained in honeycomb bonding procedures as the department builds up.

Pilot classes for 14 from Dept. 119 and 188 (inspection) began last week, said Warren E. Newton, educational services coordinator. The course is divided into three distinct units—lecture sessions, demonstrations by SD experts, and, finally, practical projects in assigned fields of specialization. Each student will be graded throughout the course on his attitude, comprehension, and ability for proper assignment later.

A condensed version of the course was given early in the month to 33 supervisors from every SD function which will have any connection with the honeycomb bonding process. Represented were supervisors from transportation, materials, industrial engineering, process control, major assembly inspection, tooling, technical services, engineering liaison and producibility, metal forming, honeycomb bonding, pod and pylon assembly, and processing. This was probably the widest range of SD functions ever brought together at such a course, said Newton.

Convair SD experts in the technique and procedures of honeycomb bonding, who helped prepare the course and will instruct, are S. W. Fife of technical services function of manufacturing development and process specification, G. R. Bradbury, manufacturing development; P. S. Rader, process control; J. M. Makis, major assembly inspection; H. B. Ross, engineering producibility; and G. L. Picotte of materials and processes laboratories.

Swissair, SAS Briefed on 600

Key representatives of Swissair and Scandinavian Airlines System now at Convair SD evaluating material prepared for coming training courses on the Convair 600 jet transport.

A group of 22 airline personnel from European headquarters of the two lines arrived in the plant last week to take part in a planners' course prepared by SD customer service, said L. J. Bordelon, chief of Convair SD transport service.

During the two weeks they were at Convair SD they were given an overall briefing on salient features of the 600, including systems of the jetliner.

SAS delegates from Stockholm, Sweden, are Capt. Mikal Aschim and Ingmar Astroem. Heading Swissair's group, all from Zurich, Switzerland, are Capt. Karl Schaerer and Urs Knuchel. Assisting in coordination of arrangements for the team is H. P. Schulthess, Swissair and SAS West Coast technical representative, based at Convair SD.

Swissair is buying seven Convair 600s and SAS two, with deliveries starting in the spring of 1961.

Japanese Sign Contract For Three 880-Ms

Japan Air Lines has signed a contract for purchase of three Convair 880-M jet transports, J V. Naish, Convair president, announced recently.

The three airliners, due for delivery next summer, will be placed in service on JAL's Southeast Asia routes and its southern route to Europe, said S. Yanagita, JAL president.

The M version of the Convair 880 has wing leading-edge slats and power-boost rudder for shorter landing and takeoff distances. It uses General Electric CJ-805-3B engines developing 11,650 pounds thrust each.

JAL 880-Ms will be equipped with full over-water provisions, including navigator's station. They will be fitted with extra tanks in the center wing section to carry 1,850 gallons of additional fuel.

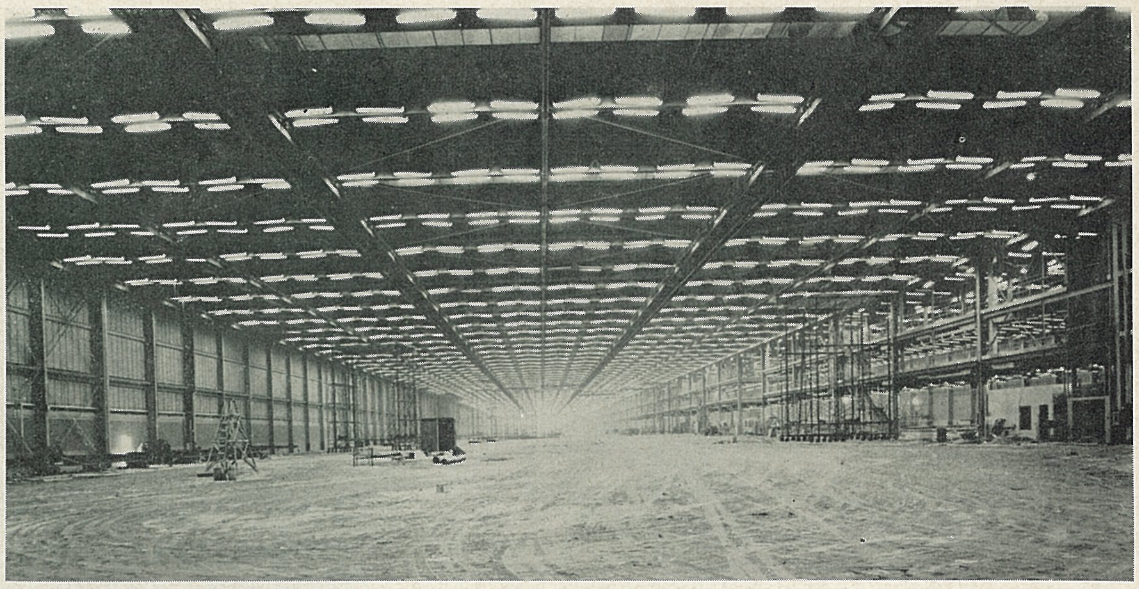
They will accommodate 87 passengers, 28 first class and 59 in the coach section. Seat tracks will permit cabin rearrangement for different requirements.

Jitsuro Kobyshi, general manager of JAL's American division at San Francisco, said the Convair airliner was purchased on recommendation of a JAL team which spent several weeks in the U. S. early this year.

Plane No. 1 of the basic 880 is going into modification to the 880-M configuration with first flight scheduled for this fall.



INSPECTION—SAS and Swissair men at Convair SD for two week planners' course inspect jet transport production line at Plant 1. In background is first Convair 600 in primary assembly. At left are P. S. Smith and F. D. Laffoon of SD customer service flanking H. P. Schulthess, SAS-Swissair representative at Convair SD.



FRAMEWORK—Here's what the "$22 million Consolidated Aircraft Plant" looked like back in early 1941. A total of 21,000 tons of steel went into main assembly building alone. Length of structure was equivalent of 14 city blocks.

Fort Worth Plant Originally Built For Assembly of Wartime Bombers

(How Convair's Fort Worth plant came to be is told in this 33rd installment of a continuing history of Convair.)

During the fall of 1940 the War Department discussed a proposal to build three big inland plants for pooled production of the B-24. The Ford Motor Co. would fabricate parts and subassemblies in one and ship these to assembly plants operated by Consolidated and Douglas Aircraft. Decision to proceed with the plan was reached that winter.

Consolidated and Douglas accepted the assignment as a matter of distasteful duty. In a telephone conversation, Donald Douglas told Reuben Fleet, "They're turning me into the Sears, Roebuck of the industry." Fleet countered with his own complaint, "I'm not happy about it, either. You can't build our B-24 without learning our heat-treatment methods and our other secrets."

The conversation turned to factory locations, and it was tentatively agreed that Wright-Patterson Field at Dayton might be suitable. The Army could use one side and the manufacturers could occupy plants at the far corners. The sites actually selected, however, were Tulsa for Douglas and Fort Worth for Consolidated. Quoting Fleet again, "President Roosevelt decided to put them there. He told me he had made promises to the senators from those states."

The location for the Consolidated plant was seven miles from the center of the city, adjoining Fort Worth Army Airfield and Lake Worth (which afforded a landing for seaplanes). The government leased 438 acres of agricultural land from the city. Consolidated contracted for the preliminary engineering and architectural studies. These were submitted to the U.S. Engineers and the general contractor, the Austin Co.

Ground was broken April 18, 1941, and construction started on a huge air-conditioned assembly plant. This was 4,000 feet long and contained 1,991,680 sq. ft. of floor space. The main assembly line was designed as a clear span bay, 200 feet wide. The sub-assembly line was a clear bay 120 feet wide. A parts plant addition a year later added 840,000 sq. ft.

Since Texas was non-industrial, skilled factory workers were few. A nucleus of 1,000 men was employed at Fort Worth in July, 1941, and transported to San Diego for on-the-job training in the home factory. A division executive group was created at San Diego, made up largely of key men chosen from that plant. When the United States was drawn into the war in December, this group was ready to move to Fort Worth and organize a full-scale hiring program.

The engineering staff at San Diego was "split down the middle" in order to supply Fort Worth, aggravating a shortage of trained technical personnel that became acute in the 1939-41 period of defense build-up, and continued to plague the industry during the war.

Largely as a means of acquiring its engineering payroll, Consolidated had bought out the small Hall-Aluminum Aircraft Corp., of Bristol, Pa., in August, 1940 and transferred it to San Diego. Archibald M. Hall, formerly the president, was stationed at Fort Worth early in 1942 to superintend completion of the Texas plant. He served later as manager of the wartime divisions at Elizabeth City, N.C., and Miami, Fla.

★ ★ ★

Hall-Aluminum Bought in '40

Hall-Aluminum Aircraft Corp. developed in this manner:

In 1920 Charles Ward Hall was the head of a construction engineering firm that built duralumin-in-framed wings for the Navy seaplane HS-2L at Mamaroneck, N.Y. On Navy commission it designed an all-metal version of the TS-1 fighter, built as the F4C-1 by Curtiss Aircraft.

In 1927 Hall-Aluminum was formed and leased space adjacent to Consolidated at Buffalo. Products included nine PH-1 flying boats for the Navy. In 1932 the XP2H-1, first Navy all-metal four-engine flying boat, was delivered. In 1934 the company moved to Bristol, Pa., where it built the XPTBH-2, twin-float, two-engine torpedo plane for the Navy and PH-2s for the Coast Guard.

C. W. Hall was killed in a plane crash at Hopewell, N. M., in 1936 and Archibald M. Hall succeeded to the presidency.

First Hires, Still With Convair, Recall Rapid Buildup at FW

It's often said of a long-time Convair FW employee: "He was here when the doors were opened."

But this week a trio of Fort Worth's "super veterans" were reflecting back to 1941—and the days before the doors were even built.

Chief Plant Engineer Frank Clayton can remember when Convair was "just a big field of Johnson grass."

"Originally it was typical farm land," he said, "with a huge oak tree standing where the industrial engineering section is now located."

Clayton was one of a nucleus of about 20 Convair SD employees sent to Texas to help establish the Fort Worth plant.

He was Convair's liaison engineer with the Austin Co., who along with the U. S. Corps of Engineers, constructed the plant. Between June of 1941—when he was first assigned to Convair FW—and completion of the plant in early 1942, Clayton saw the plant "shoot up like a weed."

"Every time I'd return from an out-of-town trip," he reflected, "a new part of the plant would be finished."

Clayton and the rest of the Convair SD vanguard "settled" in Fort Worth on Dec. 5, 1941—two days before Pearl Harbor.

Mrs. Mary Edwards, Convair FW's chief telephone operator, was the first woman to be hired locally. She went to work Dec. 2, 1941. At the time, she and the total local Convair payroll, totaling perhaps 35, were stationed in the Neil P. Anderson Building.

When Mrs. Edwards moved into the plant in February of 1942, it was just "me and the guards."

"I came out early to learn how to run the new switchboard," she said. "I used a wooden box as a chair—and carried my own blanket because the heat wasn't turned on at the time."

For several months Mrs. Edwards was one of perhaps 35 people who "ran the plant," getting ready for the boom that was to catapult the Convair population to 14,000 by the end of 1942.

"There was a small cafe where the parking lot is now located," Mrs. Edwards recalls, "and it was connected to the plant by wooden board walks. It was real muddy out front in those days."

Joe Ellis, industrial relations administrator-engineering, was the first man to be hired locally. He went to work Jan. 5, 1942, as an interviewer in the personnel department. He moved from the Neil P. Anderson office to the Texas Employment Commission office shortly thereafter, and remained at the latter location till April, 1945.

"We started out with a handful," Ellis said, "and ended with a peak employment figure of over 30,000 sometime in 1943."



OLD TIMES — F. C. Clayton, right, chief plant engineer at FW, goes over construction photos at Convair FW with Joe Ellis, Dept. 3-8, first male employee to be hired at Fort Worth. Clayton was assigned to FW from Convair SD when plant was opened.

Curtis Tanner Nets 130, Wins Yater Golf Tourney

Curtis Tanner (Dept. 6) netted a 130 to win Convair SD's top medal play golf event, the Yater Memorial, playing two consistent rounds of 83 to an 18-stroke handicap.

"Without a doubt I played the two best rounds of my life, and put them back to back at that," Tanner commented. "I became a little perturbed when I took a seven on the first hole of the second round, but then managed to settle down."

The Yater Memorial perpetual trophy will go on display in Dept. 6 until next year. Tanner will also receive a merchandise award.

More than 16 other merchandise awards will go to low gross and low net tourney winners as well as other awards for top scores tallied on either weekend.

In the 0-13 handicap group, tourney honors for low gross went to Robert Vones (Dept. 401) who stroked a 152. Low net winners were Ken Bayless with 138, Glenn Grantham with 139. Bill Brask and John Mellett tied for third with 141.

On the April 2-3 weekend Wayne Hines and Toby Luna tied for low net with 68s. Low net winners April 9-10 were Fernando Campos with 71 and Dick Ramsdell with 72.

In the 14-17 handicap group, 161 won low gross honors for 12-year-old Logan B. Jenkins (son of Logan Jenkins, Dept. 1-32). Shooting 137s to tie for low net were Fred Wells, Lee Baker, Frank Marcell and George Putness.

Three golfers tied for low net with 69s on the April 2-3 weekend. They were Mike Valin, George Dudru, and M. C. Val Dez. On the following weekend a 68 won low net for Norm Dahl, followed by Bill Clifford with 69.

Handicappers from 18-24 were led by William Tsunoda with 179. Low net went to L. M. Therrien with 137, trailed by William Minado with 138. Three tied for third low net with 139s. They were Ced Durst, James Laccabue, and Robert Nickolaus.

Low netters on the first weekend were John Datin with 69 and Lin Richardson with 72. John McKeough netted 68 April 9-10 for top honors. Tied for second, with 73s, were Wayne Urner, Joe Sanchez and Fred Line.

In the 24 and up handicap bracket, 190 took low gross honors for Bill Harris. A. U. Kaufenburg led low netters with 131. Joe Odaffer was second with 136 and Kurt James third with 137.

Eighteen-hole low net April 2-3 was turned in by Gene Balcewicz and Curtiss May who tied with 67s. The following weekend Harold Smith carded 68 and Richard Olney turned in a 71.

Record 18 Callers On Hand for Dance

No less than 18 callers, a CRA club record for a single dance, kept Convair square dancers whirling through steps at the April 23 party night in the University Heights Community Center.

Occasion was the all-Convair square dance, hosted by the SD Hoedowners, and attended by contingents from Convair Pomona, Astro and Antelope Valley.

Don Browne, regular caller for the SD group, emceed the event. Other callers, active in CRA circles at SD and Astro, who were on hand included Bob Dennington, Van Vander Walker and Dale Durbin.

Start of a new beginners class on April 25 highlighted other SD activities during the past two weeks, Maury Scholz, commisioner, reports.

He also said 45 club members made the jaunt to Palmdale April 9 to attend a dance sponsored by the Convair Antelope Valley Joshua Jumpers.

25 Students Enroll For SD Code Class

Twenty-five students are enrolled in a new code and theory course, sponsored by the CRA Radio Club, J. B. Baker, commissioner, reports.

Final registrations from Convair SD folk will be accepted at a class tonight (April 27) at 6:30 p.m. in the club's Harbor Drive headquarters.

Baker said members will lay the groundwork for election of officers at tomorrow's (April 28) meeting which starts with a potluck supper at 7 p.m. at the club headquarters.

Officers will be elected at a meeting May 12 and installed at a dinner party now set for May 21 at the Henry Langhorst Restaurant at the La Mesa Airport.

Log Book Entries

Service Emblems

SAN DIEGO

Service emblems due during the period April 16 through April 30.

Twenty-year: Dept. 31, Eldene R. Compton, E. W. Ridpath, H. F. Whisman; Dept. 100, A. B. McFarland; Dept. 115, Frank Pagliuso; Dept. 145, R. M. Crise; Dept. 188-2, H. E. Rasmussen; Dept. 280, M. J. Schipper; Dept. 400, V. J. Berger, W. T. Grinsell Jr., S. E. Smith; Dept. 401-7, E. J. Kaufmann.

Fifteen-year: Dept. 3-1, H. C. Talley; Dept. 6-21, Elsie P. Krauth; Dept. 93-8, J. E. Reynolds; Dept. 95-3, L. J. Smith; Dept. 116-0, O. G. Anderson, Marjorie R. Vander Veer; Dept. 143, Jane B. Johnson; Dept. 171, E. R. Palisch; Dept. 218, W. C. Johnston; Dept. 401-5, E. L. Welker.

Ten-year: Dept. 6, C. A. Leonard, L. M. Moore, Kenneth White; Dept. 7, H. A. Hansen, J. T. Redelings, B. D. Skillman; Dept. 21-1, Robert Davis, P. P. Patton; Dept. 25, J. W. Bethard Jr., J. T. Harrell, W. H. Hazle, J. C. Hurley, C. D. Moore, John Thomas.

Dept. 31, Fudo Takagi; Dept. 44-1, Cecile P. Hoyle; Dept. 133, Blane Bentley; Dept. 135, S. S. Hernandez; Dept. 136, Mary L. Lizano; Dept. 138, E. C. Whitten; Dept. 171-0, E. L. Ettel, G. W. Rowley; Dept. 180-0, C. E. Allen; Dept. 188, John Olar, H. S. Raifsnider.

Dept. 190-2, L. P. Dean; Dept. 192, Thea T. Austin, Marjorie K. Hirons; Dept. 201, Dorinda T. Jacobi; Dept. 216, Elizabeth B. Gwartney, Isabel P. Regnier; Dept. 266, F. W. Baldwin; Dept. 271, T. A. Branstetter, A. J. Haefner, J. P. Perrington; Dept. 292-7, Katherine B. Robles; Dept. 400-1, K. P. Drury; Dept. 401-9, J. W. Hudson.

Personals

SAN DIEGO

I wish to express my sincere thanks to the many Convair friends for their expressions of sympathy at the death of my husband, J. Earl Zentz, retired from Dept. 401.

Mrs. J. Earl Zentz.

* * *

The kind expressions of sympathy from Convair employees are gratefully acknowledged and deeply appreciated.

The Cecil Clark family.

* * *

We want to express sincere thanks and appreciation to our many Convair friends, both Plant 1 and 2, and especially Dept. 223, for their kindness, sympathy, generosity and beautiful flowers at the loss of our son.

Helen Douglas & Family,
Dept. 223.

* * *

My deepest appreciation to Convair friends and associates of my husband, F. T. Kuhles, Dept. 400, for their generosity, messages of sympathy and beautiful floral tributes.

Mrs. Cleo Kuhles

* * *

I wish to express my deep appreciation to Convair Employees' Con-Trib-Club for the kind assistance I received in my recent time of difficulty.

George Hubert, Dept. 401.

Promotions

SAN DIEGO

Promotions to or within supervision effective April 11.

Dept. 6, Engineering: To chief of guidance control, D. W. Gilbert. To development project engineer, F. J. Michael.

Dept. 7, Electronics: To senior electronic group engineer, H. M. Fuller. To electronic project engineer, D. A. Graybill.

Dept. 11, Contracts: To contracts account administration, Richard Parsons.

Dept. 34, Material Procurement: To buying supervisor, G. A. Axt, H. A. Billings, R. L. Heckl, G. T. Vargo.

Retirements

SAN DIEGO

DELOURY—Edward M., Dept. 25-8. Seniority date Sept. 28, 1953, retirement effective March 30, 1960.

ROBERTS—Samuel P., Dept. 115. Seniority date Dec. 3, 1951, retirement effective April 18, 1960.

TATRO—George, Dept. 401-4. Seniority date Dec. 2, 1935, retirement effective April 9, 1960.

Births

SAN DIEGO

McFARLAND—Son, Stuart Rudolph, 8 lbs., 3 oz., born April 3 to Mr. and Mrs. N. D. McFarland, Dept. 25-1.

TUCKER—Daughter, Kathi Yvette, 7 lbs., 4 oz., born March 26 to Mr. and Mrs. J. H. Tucker, Dept. 401-9, Plant 2.

UGALE—Daughter, Priscilla Diana, 8 lbs., 1½ oz., born April 10 to Mr. and Mrs. F. U. Ugale, Dept. 102-0.

Deaths

SAN DIEGO

CAVANAUGH — Minnie, formerly Dept. 129. Died April 12. Survived by husband, David; daughter, Mrs. Bernice Ungricht, and three grandsons.



PROUD COMMAND—Cdr. R. W. Henson (second from left), Convair SD engineer, was present at award presentation to former command, Helicopter Squadron 773. From left, Capt. R. S. Garrison, Henson, Chief Aviation Machinist's Mate E. L. Piantoni, and Cdr. W. C. Garrett, present squadron CO.

SD Navy Reservist's Command Honored For Record in 1959

Naval Air Reserve Helicopter Squadron HS-773 of Naval Air Station Los Alamitos received an award recently for its record during the last year under command of a Convair SD man.

Robert W. Henson of SD Dept. 6 commanded the squadron during the last year, the period for which it received the Willard I. Staples trophy for outstanding achievements of its enlisted men.

It is the first squadron in the Naval Air Reserve to qualify all of its eligible enlisted personnel for designation of aircrewmen. Training on weekends, all hands undergo intensive ground and flying training in operation of complex electronic gear used by helicopters in anti-submarine patrols.

SD Club Schedules Annual Golf Event

Management Club members at Convair SD have until Monday (May 2) to place reservations for the club's fifth annual golf tourney slated for Sunday (May 8) over the west course at Singing Hills.

Management Club members are asked to form their own foursomes and reserve starting times by calling Winette, ext. 382, Plant 2.

Dates of June 4 and 5 have also been announced for the annual National Management Association Zone A Golf Tourney to be held at Apple Valley.

For additional information, contact Russ Davis, ext. 335, Plant 2.

Convair Softballers On 'All Star' Team

Seven softball players from Convair SD and Astro this season will play for the San Diego Big Shots, an all-star team made up of the top 15 softball players in the city.

Teams are being fielded by 12 cities and towns in the Southern California area. The Big Shots will play their first game with Mayer's Construction from Escondido Friday (April 29) at 8 p.m. at the Helix High School Field in La Mesa. Spectators are invited.

CRAs at both SD and Astro are sponsoring Convair players. Representing SD are Dean Froggatte, John Hartsell and Dick Fenton.

Entry Deadline Near For IRC Golf Event

Golfers at Convair SD have until noon Friday (April 29) to make reservations for the annual Industrial Recreation Council Golf Tournament slated for May 7-8 and 14-15 at Torrey Pines.

Entry blanks are available at employee services, Plants 1 and 2. Entry fee is $3.50. For additional information, contact Ken Wulfemeyer, ext. 1705, Plant 1.

Gun Clubbers Slate Honors For Frisbee

A Convair SD veteran, Larry Frisbee, who for years has been a leading trap shooter with the Convair Gun Club, will be honored at a club meeting Tuesday (May 10) which starts at 7 p.m. in the CRA Clubhouse, Gillespie Field. Frisbee will retire soon from Convair.

All interested Convair SD and Astro folk are invited to attend the meeting which will also feature the screening of a film shot by Paul R. Sloan of San Diego while on a hunting expedition in India.

Sloan will narrate the film which is of interest to both hunters and others interested in native life and customs. Show time is 8 p.m.

Frisbee, who will be honored at the meeting, has been with Convair SD since 1942 when he joined the accounting department. From 1952 until 1956 he worked in the division controller's office and for the past four years has handled accounting and purchasing functions for the Convair SD Recreation Association.

He is considered an "honorary commissioner" on the SD Employees' Council of CRA.

A smorgasbord potluck supper at 7 p.m. will precede the meeting proper. Those planning to participate are asked to contact either Mrs. Ezra Johnson, BR-7-3073, or Mrs. Jack Swank, CO-4-6726, who are coordinating menu arrangements.

Gun enthusiasts at SD and Astro are reminded that a "Silver Bird" shoot, with prizes awarded on a luck basis, is planned for May 1. It will start with registration at 9 a.m. at the CRA Gillespie Field Range. Events are slated in trap, skeet and rifle.

Convair Folk Play With SD Orchestra

Three concerts are planned during May by the San Diego County Symphony Orchestra, directed by Convair SD's John Metzger (Dept. 400).

Two are open to the public, free of charge. The first will be held May 9 at 8:15 p.m. in Hoover High School Auditorium. Another will be held at San Dieguito High School in Encinitas May 25 at 8:15 p.m.

A third concert, at the San Diego Club May 18, is for club members only. A number of Convair SD musicians perform with the orchestra, which is an amateur group, sponsored by the San Diego city and county adult education center.

Any Convair SD folk and dependents (over 18) interested in joining the orchestra can obtain additional information by contacting the Hoover High School office, AT-2-7638.

Mexican Trip Scheduled For Spanish Class

Students in CRA-sponsored beginning and intermediate Spanish classes will stage a "Fiesta Alegre" (happy party) April 30 at 7:30 p.m. hosted by instructor Jim Hardison (Dept. 15) in his home.

Students will sing Spanish songs, break a pinata, enjoy Mexican fare, as well as be entertained by mariache singers from Tijuana. The affair will climax the present term for both classes.

Also planned, primarily for students but also open to any interested Convair SD folk, is a trip to Mexico City and Acapulco scheduled for the last two weeks in August.

Special arrangements are being firmed for the trip now. Round-trip flight fare to Mexico City will cost $134. Living expenses for board and room during the two-week stay, through special arrangements, are not expected to exceed $3.50 per day per person.

All those making the trip will be treated as "students." In fact, while in Mexico City SD folk will be boarded out into Mexican homes in the same fashion as students at the University of Mexico.

Twenty-five in the CRA class have already signed up for the trip.

For additional information, contact Hardison, CY-8-7576.

Charm School Entries Open

A limited number of openings are still available for Convair SD women, wives and daughters in an advanced CRA-sponsored charm school course which will start next Tuesday (May 3).

Deadline for registration is this Friday (April 29), said Martha Woodberry, CRA commissioner of women's activities.

The classes, conducted by Edith Antelline, are held two hours, 7-9 p.m., each Tuesday evening in the Balboa Park House of Hospitality.

Enrollment is limited to 25, and cost, per person, is $15. In the extension course, each student is given pointers on figure correction, modeling, makeup, etc. Business and social etiquette and apparel are also covered.

Carroll Sweeps Two Pistol Club Events

J. B. Carroll (Dept. 3-1) shot himself into first place in both .22 Police Course and Short National events April 10 at a Convair SD Pistol Club shoot.

In both events Carroll edged Jim Halfacre (Dept. 180) for the top rung. In the Police Course master class Carroll totaled 288 points to Halfacre's 284. Both marksmen tallied identical scores of 278 in the Short National.

Close behind in the latter were W. G. Walker (Dept. 6) with 277 points and Carl Hornburg (Dept. 139) with 272.

Ralph Picard (Dept. 7) placed first in the expert class with 279 points, followed by Dale Young (Dept. 31) who totaled 269. In the sharpshooter class, A. B. Carlson (Dept. 68) placed first with 269 points and Dorcus Utter (wife of Arley Utter, Dept. 129) second with 262.



"I bought it with all the money you saved at the big dress sale."

CRA Sports & Recreation Convairiety

Softball Now Under Way For Shop, City Squads

Softball activity at Convair SD, already off to a strong start, will go into high gear during the next few weeks.

An important organizational meeting for shop league teams will be held tomorrow (April 28) at 5 p.m. in the CRA Clubhouse, Pacific Hwy.

Gil Crosthwaite, commissioner, reports eight departments have entered squads in the league while two others have tentatively made arrangements. Signed for the league are teams from 880 Wing, 880 Fuselage, F-106 Wing, Mockup, Dept. 6 Dynamics, Dept. 6 Loft, Dept. 97 Tabulating, and Dept. 6 Flight Test.

Managers are requested to turn in team rosters at tomorrow's meeting. Maximum number of players allowed per team is 15, not counting the manager, according to Crosthwaite.

Also to be discussed is a schedule of practice games. League play will start around the week of May 9, depending on availability of diamonds in the area.

Arrangements for two Convair SD teams to enter city leagues have also been made, Crosthwaite said.

The Convair Eagles will be entered in the San Diego AAA League and a Convair Rose Canyon squad will be fielded in the San Diego Industrial A League.

Last week the Eagles played in the Amateur Softball Association tourney in La Mesa and May 2 they will go to bat in the pre-season city tourney with games planned at various city playgrounds.

SD's Rose Canyon nine will be managed by Fred Matson, veteran ex-Eagle star, Crosthwaite added.

Archers Map Preparations For Tourneys

Regional and club shoots are on tap for archers at Convair SD during the first two weeks in May.

The state regional shoot will be held May 1 at the Singing Hills Range. Entry fee for the event is $2. Interested archers are asked to contact Al Phipps, CY-5-8194.

A club shoot will feature field and hunter targets on May 8. Registration will open at the Singing Hills Range at 9 a.m. with shooting starting at 10.

Archers are reminded that participation in the club shoot will be good practice for the sectional and state shoots to be held later in May at Griffith Park in Los Angeles.

Early this month three SD archers won honors at the Southern California Field Archery Association's annual trophy shoot in Los Angeles.

SD winners at the Griffith Park Range were Al Phipps (Dept. 401), second place in barebow class 325; Bob English (Dept. 14), fourth place in barebow class 250; and John Platt (Dept. 401), fourth place in freestyle class 325.

Convair archers also shared honors at a special "old timers" shoot sponsored by the club April 10. Winners included Harry Ross (Dept. 406), class 400; Platt, class 325; Tom Boling (Dept. 192), class 250; Warren Osborn (Astro), class 175; Eddie McDonald (Astro), class 100; and Danny Osborn, little beaver.

Dept. 3, Electrical Lead Shop Volleyball

Dept. 3 and Electrical are setting the pace in the Convair SD shop volleyball league with identical records of two wins and no losses, Pete Beyrer, commissioner, reports.

Dept. 3 turned in the league's first upset, clipping last year's champ, Industrial Engineering, 11-15, 15-10 and 15-3. Industrial Engineering is presently ranked third with a two-and-one record.

Following, in order, are Structures, Physics and Propulsion. League games are played Wednesday evenings in the Muni Gym, Balboa Park.

Discount Available For Baseball Games

Special discount exchange tickets for Padre baseball games tonight (April 27) and Wednesday evening (May 4) are available at SD employee services, Plants 1 and 2.

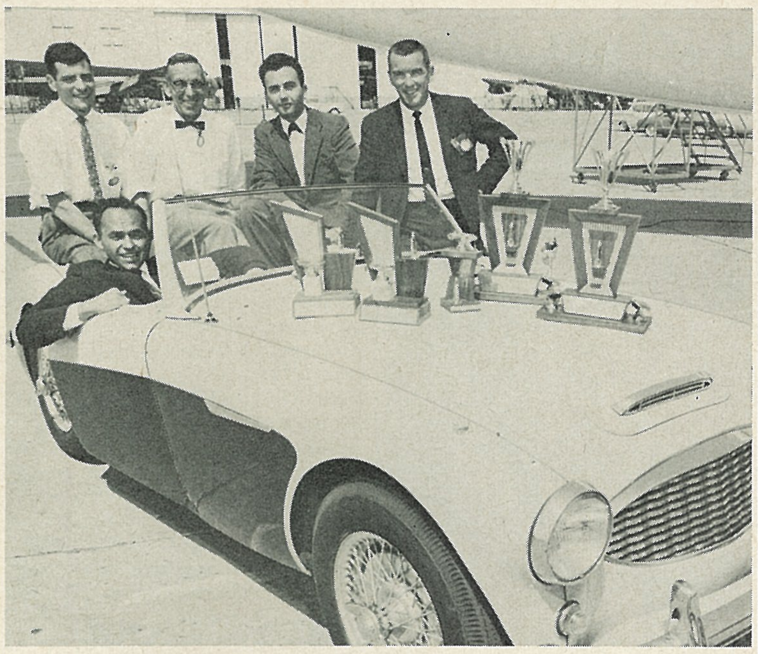
When presented at the Padre box office SD baseball lovers can obtain a box seat ($2 value) for $1.25 or a general admission seat ($1.25 value) for 50 cents.

Keg Deadline Near For Summer Play

Bowlers planning to enter Convair SD summer leagues are urged to make reservations this week, according to Jim Hayman and Mike Brooks, co-commissioners of bowling

With leagues at Pacific Recreation scheduled to start rolling the first and second weeks in May time is running short for accepting entries, Hayman said.

Eleven leagues are planned for SD keglers at various alleys, with activity slated for every weekday evening. For information, contact Hayman, ext. 1155, Plant 1, or Brooks, ext. 583, Plant 2.



RALLY RUNNERS—Convair SD drivers and navigators won lion's share of awards at Atlas Rally II sponsored by Astro Sport Car Club April 10. Among winners were (from left): George Blondin, Peter Aperlo, Tommy Jackson, Barrie Freeman and Tom Kienholz.

Four SD Teams Place in 'Top Ten' Among 180 Entries in Atlas Rally

Sports Car Clubbers from Convair SD drove off with many of the top awards in Atlas Rally II sponsored by the Convair Astro Sports Car Club April 10.

Leading SD driver-navigator team was composed of Tommy Jackson and Peter Aperlo who placed second in the overall standings.

They were followed by Bob and Lorrie Dunn who placed third and Bill Newberry and George Andert who captured fourth. Also in the "top ten" were Tom Kienholz and George Blondin who posted a seventh place finish.

The Astro rally drew over 180 entries, one of the largest fields to participate in a sports car event in San Diego. The rally covered 225 miles of scenic back country roads.

In addition to individual car honors SD drivers placed first and second in the three-car team event.

Members of the first-place team were Bob and Lorrie Dunn, Newberry and Andert, and Kienholz and Blondin. Ranked second were Jackson and Aperlo, Vince Cappelletti and Barrie Freeman, and Don Hall and Francis Brickson.

Also taking honors in the Atlas Rally were Gil Wright and Tom Madsen who received a trophy for best all-male entry outside of the "top ten" awards. Another Convair SD couple, Bill and Anne Rutledge, won their first trophies in competition, placing fifth in the novice class.

Awards were presented after the rally in the Stardust Hotel in Mission Valley.

Next meeting of the SD Sports Car Club is scheduled for Wednesday (May 4) at 7:30 p.m. in the Natural History Museum, Balboa Park.



PALMDALE PARTY—More than 40 Convair SD Hoedowners this month journeyed to Palmdale to attend square dance hosted by Antelope Valley CRA Joshua Jumpers. Commissioners from SD, Pomona, and Antelope Valley got together for top photo. From left are Mr. and Mrs. P. E. Liggett, Mr. and Mrs. Maury Scholz, Mr. and Mrs. John Warren and Mr. and Mrs. Cecil Campbell.

European Trip Meeting Slated For Next Week

All SD folk interested in a CRA-sponsored trip to Europe are invited to attend a meeting in the Cotillion Room of the El Cortez Hotel at 8 p.m. on Wednesday (May 4).

A European travelogue will be screened and Gordon Oliver, Scandinavian Airline System representative, will answer questions from the audience.

Those planning to attend the meeting are asked to contact employee services, ext. 1245, Plant 1, so that arrangements can be made.

More than 50 SD persons have indicated interest in taking the CRA-sponsored, two-week trip to Europe, via SAS Jet Polar Flight Charter, scheduled to leave Los Angeles for Copenhagen Oct. 29.

With a 120-passenger load, price for the chartered flight will be $311.54, covering costs from L.A. to Copenhagen, and return from London to L.A. on Nov. 12.

A variety of tours are offered for the two-week European stay, varying in price as well as cities visited and time spent in different countries.

Car hire and car purchase prices are also quoted in detailed brochures now available at employee services, Plants 1 and 2.

Registrations for the trip must be made before June 1. A $50 deposit is required for the flight reservation. Those signing for one of the 10-day tours must post an additional $50 deposit.

Bracamontes Wins SD Handball Title

Convair SD's handball champ, Nacho Bracamontes (Dept. 133), added another laurel last week when he won the Class A championship in the SD County Amateur Athletic Union handball tourney at the San Diego Club.

Bracamontes' opponent, Joe Jobbins, turned his ankle in the third game and was forced to retire. Bracamontes won the same tourney in 1958 and has won some 30 trophies in handball competition during the last few years.

Four Ballroom Dance Classes To Start Soon

A new series of ballroom dancing classes open to both Astronautics and San Diego employees will start next week.

All are taught at Pacific Ballroom, 1106 Broadway, downtown. No advance registration is necessary. Costs are on a month-to-month basis with no contracts involved. Grace and Bill McGrath are instructors.

Beginning Monday (May 2) at 7:30 p.m. a new social dance class opens. This class is a brush-up of old dancing techniques, plus an introduction to new steps, including some Latin.

A straight Latin class for beginners swings off at 8:30 p.m. Thursday (May 5).

Intermediate smooth dancing will be held at 7:30 each Tuesday beginning May 10. This class is for those who have had previous instruction. Intermediate Latin lessons will be offered at 7:30 p.m. each Friday beginning May 6.

Martha Woodberry, ext. 1245, Plant 1, is San Diego CRA commissioner for ballroom dancing. Bryan Weickersheimmer, ext. 3322, is Astro commissioner.

CRA Calendar

(Convair SD Recreation Association has some 40 activities in operation. For information on SD sports, call CRA headquarters, ext. 1245, Plant 1.)

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ARCHERY CLUB—State shoot May 1 at Singing Hills. Club shoot May 8 at Singing Hills. Registration opens at 9 a.m.

BADMINTON — Open play for families Tuesday evenings at 7:30 in Balboa Park Federal Bldg.

BOWLING—Entries now open for summer league activity. Contact Jim Hayman, ext. 1155, Plant 1, or Mike Brooks, ext. 583, Plant 2.

BRIDGE CLUB—Next session Tuesday (May 3), 7:30 p.m., Hotel Barcelona, Fourth and Juniper.

FENCING — Workouts and classes every Friday, 7 p.m., downtown YMCA, 8th and C.

GOLF—Entry deadline noon Friday (April 29) for IRC tourney. Entry blanks available at employee services, Plants 1 and 2.

GUN CLUB — "Silver Bird" shoot Sunday (May 1) starting with registration at 9 a.m., Gillespie Field Range. Meeting Tuesday (May 10), starts with potluck supper at 7 p.m.

ICE SKATING—Convair night every Thursday; discount rates between 6:30 and 8 p.m. at Iceland, 6055 Lake Murray Blvd.

JUDO—Workouts and instruction Thursdays, 7 p.m., CRA Clubhouse, Pacific Hwy.

MOVIES — Reduced-price movies each Tuesday night at Academy Theater, 3271 University Ave. May 3—"Untamed," "For the First Time," and "From Hell to Texas." May 10—"Ten Tall Men," "Kill the Umpire," and "Macabre." Admission: adults, 25¢; children, 15¢.

PISTOL CLUB—Next shoot Sunday (May 8), 9 a.m., San Diego Police Pistol Range, Federal Blvd. and Home Ave.

RADIO CLUB—Meeting tomorrow (April 28) starts with potluck supper at 7 p.m. in Harbor Drive headquarters.

SOFTBALL—Meeting for shop league teams tomorrow (April 28), 5 p.m., CRA Clubhouse, Pacific Hwy.

SPORTS CAR CLUB—Meeting Wednesday (May 4), 7:30 p.m., Natural History Museum, Balboa Park.

SWIMMING — Free family swim night Saturday (May 7), 7-9:30 p.m., at Mission Beach Plunge. Tickets at employee services and from departmental representatives.

WOMEN'S ACTIVITIES—Registration for advanced charm school closes Friday (April 29) at employee services, Plants 1 and 2.

Centaur Construction Progresses, First Launch Expected Next Year

Components for a new "bird"—Centaur—are taking shape in Convair Astronautics production areas at San Diego.

Designed for interplanetary missions to Venus or Mars, or to place large payloads into orbit around the earth, Centaur is the second stage, with an Atlas series D missile as the first stage. Centaur is the first flight vehicle in the United States to use rocket engines burning liquid hydrogen and liquid oxygen as fuel.

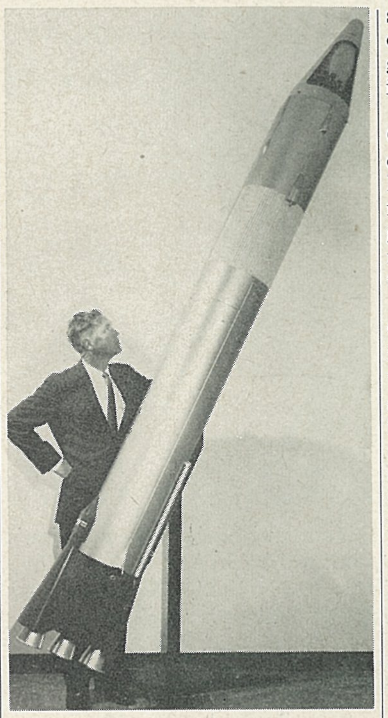
Centaur also is being considered as a stage for Saturn.

First U.S. vehicle capable of putting up payloads equivalent in weight to the Russian Lunik series, Atlas/Centaur will be able to put a four-and-a-half ton payload in orbit around the earth, or to send half-ton payloads to Venus or Mars.

Astronautics will begin final assembly and checkout of the first Centaur this spring. National Aeronautics and Space Administration, the sponsoring agency, has indicated the first launch will occur in 1961. Astro is developing the launch vehicle, exclusive of engines.

Centaur will be static tested at a new stand—Stand Four—being built at the Sycamore Canyon Test Site. It will be near Stand One and will utilize existing blockhouse facilities. For a launch site Atlas/Centaur will use Complex 36, under construction now at Cape Canaveral. It was designed by Astronautics and Convair crews will operate it and conduct the launchings.

Existing Atlas technology and production facilities have been largely used for Centaur so far, helping Astro to reduce Centaur costs materially. Centaur and Atlas tank sections bear marked similarity. Both are of light weight thin-gauge stainless steel; both require pressurization or bracing during fabrication. Atlas welding facilities in Dept. 758 are turning out Centaur parts on regular Atlas machines.



MODEL—J. R. Dempsey, Astronautics manager, stands beside 1/10 scale model of Atlas/Centaur. Ribbed section is point at which stages are connected.

Only in final assembly and checkout does Centaur become "independent" from regular Atlas production facilities. Two docks are now ready for Centaur assembly.

Foreman Harold Miller is rounding up an experienced crew to man this point on the first shift. A second shift may be added later. Assisting will be Centaur inspectors and manufacturing control personnel. But Miller continues to report to Maynard Bjorstrom, Dept. 771 general foreman.

Krafft Ehricke, Astro's noted space expert, is director of Project Centaur, reporting to Manager J. R. Dempsey. Deane Davis is project engineer.

In material department, B. W. Gruber, buying supervisor, specializes in materials for Centaur. In other engineering and administrative operations, small groups are either assigned permanently to Centaur, or assigned temporarily as needed.

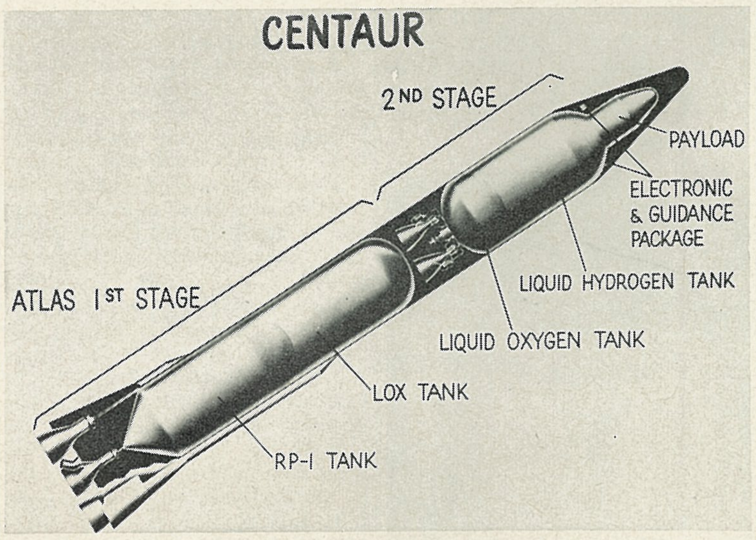
Development of Centaur (first Centaur contracts were announced in January, 1959) has been somewhat of a joint effort with assists from other Convair operating divisions ranging from engineering to parts fabrication. For example, Convair Fort Worth is turning out a limited number of nose cones for experimental Centaur launches. The first will be delivered this summer. They are all-fiberglass honeycomb sandwich panel units, the first of their size ever built.

Centaur's power plants are radically different from anything in use today.

Missilemen have long recognized the potential of hydrogen as a fuel. However, in its natural state it is a gas. Only through successive cooling can it be compressed into a liquid fuel. This requires lowering the temperature to 423 degrees below zero Fahrenheit! That's almost as cold as you can get.

Pratt and Whitney has developed and static tested such engines at its West Palm Beach, Fla. plant. Extensive Astro testing has proved the capability of Centaur tanks as fuel containers. Thrust of the two Centaur engines will total 30,000 pounds.

Once Atlas has boosted Centaur into space and has fallen away, leaving Centaur "on its own," Centaur's engines will operate intermittently as the mission may require. For example, it can "wait" in space until it is in the most advantageous position with respect to its target before engines start up to drive Centaur on its last stages of flight.



CUTAWAY—Drawing shows how Atlas and Centaur will be linked together for space shot, with Atlas powering second stage into space, then falling away as second stage continues on mission. Centaur is designed for flights to Venus or Mars with first launch due next year.

OFFUTT FOLK HELP FLOOD SUFFERERS IN OMAHA AREA

OFFUTT AFB — Astronautics men and women were among rescue workers when two major rivers and various creeks flooded.

H. J. Rothwill, R. A. Jackson, S. H. Stevens, Glen Berg, Mrs. Marvin Houser, W. R. Capps, R. L. Davis, Cecil Dewey, John Dwyer and Dian Garrison were among those credited with helping those in distress.

Capps, a volunteer fireman, was part of a two-man team that waded through flooded areas near Fremont, helping rescue the stranded. He also helped carry to safety a man suffering from a paralytic stroke.

Others filled, hauled and placed sand bags to bolster dikes.

Davis and Stephens assisted by carrying coffee to workers and picking up food donations. Mrs. Houser opened her home to stranded motorists for the night.



THE BEGINNING—Interested visitors to Astronautics recently were Franklin B. Lincoln Jr., left, Assistant Secretary of Defense, controller, and Harold R. Logan, deputy controller. They are shown in factory with W. H. Patterson, second from left, and Col. H. E. Moose, Air Force Plant Representative.

Astro and SD Men to Be Active In May Flight Test Symposium

Convair men will have key roles at the Sixth National Flight Test Instrumental Symposium set for May 2-5 at Hotel del Coronado, San Diego.

The symposium of the Instrument Society of America is sponsored by Convair San Diego and Astronautics and Ryan Aeronautical Co. General chairman is Harold K. Cheney, SD staff specialist in engineering flight test. Robert A. Ackley of Convair Astro is organizing the program.

Convair men assisting Ackley are M. Barlow, F. T. Sinnott, G. S. Tweed Jr., Orison Wade, all of Astro and Murray Edelstein, Convair SD.

In charge of symposium administration is John H. Jensen of Bendix West Coast, a division of Bendix Aviation Corp. Convair personnel who have worked closely with Jensen include John J. Beckman, Convair SD, and Norman B. Baird, George A. DiMatteo, Robert L. Galley, and John E. Vondracek of Astronautics.

J. R. Dempsey, manager of Astronautics operating division, will act as toastmaster at the May 2 banquet at which Rear Adm. Jack P. Monroe, Pacific Missile Range commander, will speak on "The Navy in the Space Age."

Over 500 engineers and instrumentation men from all over the country are expected to attend the conference which will deal specifically with recent development in flight test instrumentation.

Roy Miller, Veteran SD Engineer, Dies

Roy A. Miller, long-time Convair SD engineer, died April 14 at his Chula Vista home. Services were held last Monday from the Chapel of the Roses, Glen Abbey Cemetery in Chula Vista.

Miller, who joined the company in Buffalo, N. Y., more than 33 years ago, retired in January of this year. He was one of the four comprising the nucleus of the first engineering department under I. M. Laddon, then chief engineer.

He is survived by his wife, Bertha.

Four From Convair Teach Engineering At San Diego State

Four Convair men are currently doubling as instructors in engineering at San Diego State College.

Dr. James Watson, Astronautics material research engineer, teaches a graduate course in Cryogenics (science of low temperatures).

Dr. Walter Bradfield of Convair's Scientific Research group teaches a graduate course in heat transfer, while Dr. Ching Yang, staff scientist of the same group, teaches a graduate engineering dynamics course.

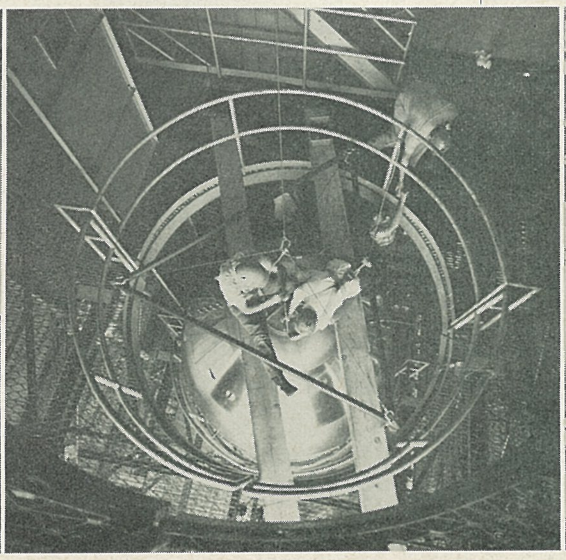
Charles D. King of Convair San Diego teaches an undergraduate course in Gasdynamics.

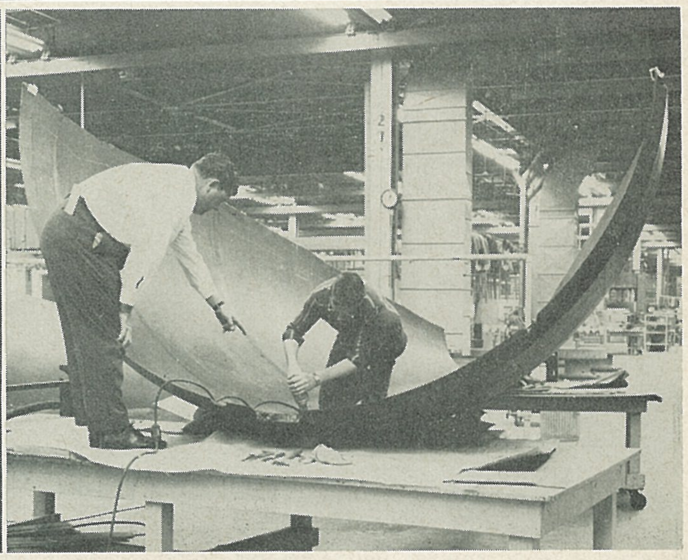
Paving Replacement Progressing at FW

About 4,000 square yards of paving is being replaced between Convair FW's assembly and experimental buildings. Underground concrete started giving way.

Working on one-half of the area at a time, the work should be finished about the first of June, according to Shep Lampkin, field engineer in plant engineering.







CENTAUR PROGRESS—At left E. L. Valade of Astronautics Dept. 220-2 (mfg. control) hangs out "shingle" as work progresses on Centaur project. Behind are docks which will be used for assembly and checkout of second stage, which will use Atlas D for first stage. In center, crews install Centaur tank in hydraulic-pneumatic test tower. Typical of assists from other divisions is photo at right, showing work at Fort Worth on all-fiberglass honeycomb panel for Centaur. Shown are R. E. Atnip and Dale Everett of FW Dept. 35. Static testing will be done at Sycamore Canyon Test Site near San Diego.



880 COMFORT—Passengers will bask in comfortable, luxurious surroundings of Convair 880s as Delta Air Lines puts first transports in service next week.

C-V CONVAIR

Published every other Wednesday. GD GENERAL DYNAMICS Convair Division of General Dynamics Corporation.

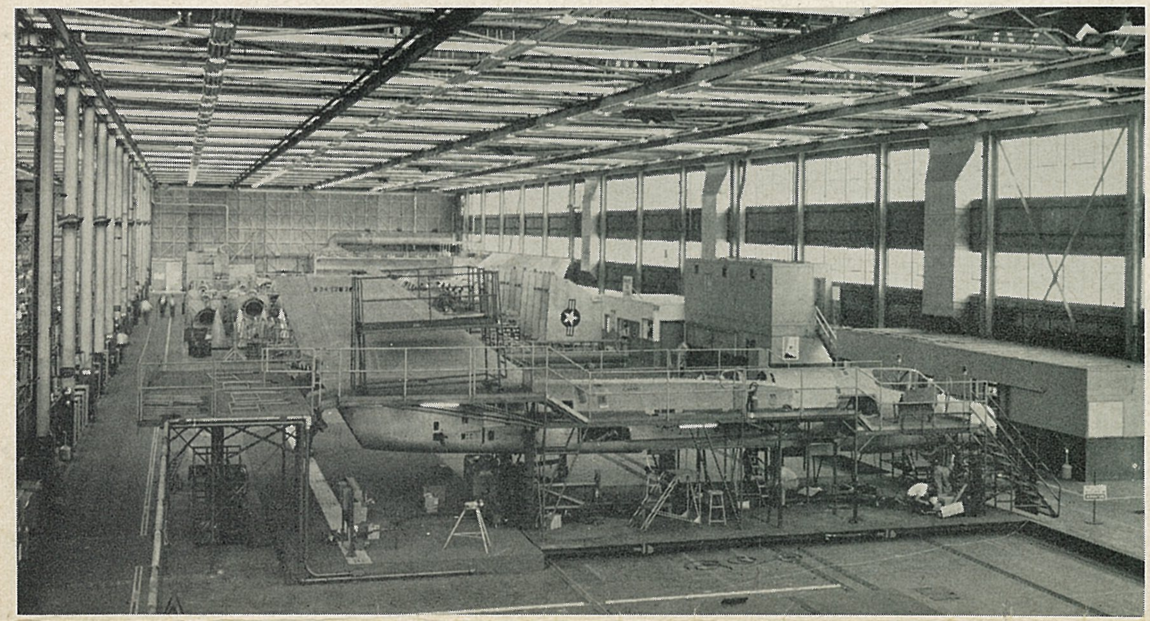
Convairiety

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SAN DIEGO, POMONA, ANTELOPE VALLEY, VANDENBERG AFB, CALIF. AFMTC, CAPE CANAVERAL, FLA., FORT WORTH, TEX.



BUILDING UP—First station on new F-106 assembly line was occupied last week in Bldg. 2 at Convair SD Plant 2. Line is being shifted from Bldg. 3 at Plant 2, making room for Atlas tank manufacturing operations. F-106s in "test to tactical" conversion can be seen in background. New line will run south-to-north in Bldg. 2.

880 Passenger Service Begins This Weekend

First passengers will be boarding Convair 880 jet transports next week as the world's fastest jet airliner goes into commercial service with Delta Air Lines.

Convair 880s will be flying non-stop after May 15 between New York and New Orleans, Atlanta, and Houston. Time schedules, based on the 880's cruising speed of 615 miles an hour, have been cut on all flights—for instance, almost 40 minutes will be lopped off the New York-Houston hop.

First 880 flight out of New York City on May 15 was completely sold out over a week ago, announced Delta Air Lines. The all first-class Convair jet airliner carries 84 passengers.

By May 29 a flight between Dallas and Atlanta will be added to the 880 itinerary, and by June 1, 880s will be flying between Houston and Chicago. By the middle of June, Convair 880s will be serving Chicago and New Orleans with a stop at Memphis.

Delta Air Lines took delivery last week on two more Convair 880s with another due to go to the airline some time this month. By September of this year Delta will have 10 of the Convair jet airliners in service over its 11,385-mile network.

The airline's first 880, "Delta Queen," left today (May 11) from San Diego on a non-stop hop to Atlanta, Ga., Delta's headquarters, on the first press demonstration flight of an 880. It carried 72 passengers—Convair, Delta, General Electric officials in addition to press, radio, and television representatives.

The Delta Queen, which went to the airline in February for pilot training and route checkout, had been back at the Convair SD plant the last few weeks for modification to latest production configuration. This plane, the first to go to any airline, has been flown nearly 400 hours by Delta Air Lines crews.

Next airline to put the 880 into service will be Trans World Airlines which will begin taking delivery of the first of its fleet of 30 airliners this month.

The Convair jet transport received its final airworthiness certificate from the Federal Aviation Agency on May 1 after 15 months of intensive flight and structural checkout. Four of the airliners have clocked more than 1,200 hours of flight time in operations ranging from Florida to Alaska. FAA certification climaxed more than four years of design, manufacturing and testing by Convair SD.

The assembly line at the SD Plant 1 is now producing 880 jet airliners at a rate of six per month. First Convair 600, sister ship to the 880, is on the primary assembly line with three more 600s in various stages of early structure.

Airlines which have purchased the 880 are Trans World Airlines, 30; Delta Air Lines, 10; (880-Ms), Capital Airlines, 7; Civil Air Transport, Republic of China, 1; Avensa of Venezuela, 1; Japan Air Lines, 3; (600s), American Air Lines, 25; Swissair, 7; Scandinavian Airlines System, 2; and REAL of Brazil, 3.

New F-106 Line Created In Bldg. 2 at SD Plant 2

Five stations on the new F-106 assembly line in Bldg. 2 at Convair SD Plant 2 are occupied this week and work is under way on nine F-106s undergoing modification in the "test to tactical" program, also in Bldg. 2.

F-106s presently in primary and final assembly in Bldg. 3 will be completed there, with the last scheduled for delivery to field operations about the middle of June.

As stations are vacated on the Bldg. 3 line, crews and equipment are being transferred to similar positions on the Bldg. 2 line, according to R. D. Marks, chief, manufacturing planning and methods.

(Bldg. 3 will be taken over by Convair Astronautics for Atlas tank manufacturing operations now centered in the Astro factory at the main Kearny Mesa site.)

The new F-106 line will run in a south-to-north direction, just opposite of Bldg. 3. Among other things, this will enable planes coming out of final assembly to go into the weather shed, located outside the southwest corner of Bldg. 3, for fuselage spray tests.

The extreme south end of Bldg. 2 will continue to be the center of "test to tactical" modification work. Nine planes, the total funded by the Air Force in the first part of the program, are presently undergoing conversion, according to W. J. Dewey, program administrator for the F-106.

The total "test to tactical" program includes 20 more F-106As and six F-106Bs. Of these, six F-106As and one F-106B are currently in storage at Convair Palmdale. The balance will arrive periodically at Palmdale to await delivery to Convair SD.

Planes trucked from Palmdale have already had fire control systems, engines and wings removed. In Bldg. 2 at Plant 2 the fuselages are de-mated, and parts and furnishings removed for change and modification.

"Test to tactical" interceptors will match the combat capability of the last production aircraft currently on order by the Air Force. They will be phased into the Bldg. 2 line after the last production model.

Preparations for the new F-106 line in Bldg. 2 were started last month with the laying of track and installation of power. More than 700 Convair SD persons are involved in the transfer from Bldg. 3 to Bldg. 2.

Dept. 266 (primary assembly) and Dept. 267 (final assembly)

(Continued on Page 2)

Free Survival Film Showings Scheduled

All interested Convair SD folk are invited to attend free, CRA-sponsored showings this week and next of the Dana and Ginger Lamb adventure film, "The Search for the Lost Mission of Santa Ysabel."

Showings will be held this Friday (May 13) and next Tuesday (May 17), both starting at 7:30 p.m. in the CRA Clubhouse, Gillespie Field.

The Lamb couple, nationally recognized for their survival techniques, will personally narrate both screenings. Question and answer periods will follow.

The film includes survival techniques successful in areas similar to the Southern California back country and desert.

Seating will be on a first-come, first-served basis.

Awards Night For SD Club Next Week

Next meeting of the Convair SD Management Club, Wednesday (May 18) will feature as main speaker B. F. Coggan, Convair vice president and SD operating division manager.

He will discuss "Education—The Hope of Mankind."

Club scholarship awards will also be made at the meeting which starts with social hour at 5:30 p.m., followed an hour later by dinner.

The meeting, in the Caribbean Room of the El Cortez Hotel, is one of the few during the club year for both members and their ladies.

Tickets are on sale for $2 each at the usual departmental outlets. Sponsors are plant engineering and transportation operations.

Bloodmobile Visit May 26

Convair San Diego will be replenishing its blood reserve at the May 26 bloodmobile visit to Plant 1.

All first-shift people in Plant 1, with the exception of experimental and engineering personnel in Bldgs. 5 and 51, will be asked to sign up. Cards will be in the hands of supervisors by next Monday (May 16).

Ken Wulfemeyer of SD employee services hopes for a good response from donors to boost SD's credit at the San Diego Blood Bank. This will be the first bloodmobile visit scheduled during the last two months.

Convair Doing Big Spare Parts Business at SD

Convair San Diego last year received over 100,000 orders for spares and ground support equipment.

Of the 100,000 orders, 88,000 were placed by the Air Force to support F-102s and F-106s. The other 22,000 were needed for commercial plane support (mostly Convair-Liners, but also the first flow of 880 spares).

Spare business for 1960 will continue high, probably maintaining 90 per cent of the 1959 volume, according to John Doig, chief of service parts.

Scope of the spares business is better appreciated when it is realized that for every 100 interceptors purchased, the dollar value of spares sold during the lifetime of the interceptor system is equivalent to 20 more aircraft.

For two-engine aircraft, every 100 actual airplanes purchased requires the production of 15 more equivalent airplanes in spares to last during the plane's lifetime. The same ratio is expected to apply to support the Convair commercial jet transports.

The Convair SD spares sales program is divided into military spares, commercial spares, and the sale of ground support equipment, military training units, and modification kits.

Because the military and commercial programs differ in the manner in which orders are

(Continued on Page 2)



HONORED—E. R. Hockert (Dept. 34-5), left, and N. R. Keough (Dept. 31), center, received MacSave-it awards for cost reduction efforts at April SD Management Club meeting. Mug of Month winner was V. A. Petricola (Dept. 8-1).

New F-106 Line Created In Bldg. 2 at SD Plant 2

(Continued from Page 1)
are among first departments making the move. As planes move down the Bldg. 3 line crews will shift to similar stations on the Bldg. 2 line.

Transfer of Dept. 280 (mock-up) personnel started May 30 and will be completed about June 20. Dept. 292 (manufacturing control) will give up office space on the main floor of Bldg. 3, timing moves to Bldg. 2 to coincide with related line moves.

In general, the only SD function remaining in Bldg. 3 will be Dept. 216 (electric bench) on the "C" mezzanine.

Related moves in Bldg. 4 are also under way, making room for Astro functions. By June 1, SD will turn over 14,000 square feet of space on the north end of the ground floor to Astro.

The master planning group of Dept. 5 and Dept. 2-1 (public relations) have already transferred to Plant 1 locations. Planning, spares and oil control section of Dept. 400 (tooling) will vacate space in Bldg. 4 by June 1. Numerical control function of Dept. 400 will move from the ground floor to the second floor of Bldg. 4.

By the end of the year, the only SD departments in Bldg. 4 will be located on the ground floor at the extreme south end (with the exception of numerical control). Remaining will be Dept. 3 (industrial relations), Dept. 93 (accounting) and Air Force office.

Students Will Hear Talk on Machining

San Diego student chapter of the American Society of Tool and Manufacturing Engineers will meet May 13 at 7 p.m. in the IAM Building, 3911 Pacific Hwy.

Main speaker at the meeting this Friday will be William Carr, SD manufacturing development engineer, who will discuss "A Guide to Higher Productive Machining Practice."

Hospitality Group Elects SD Officers

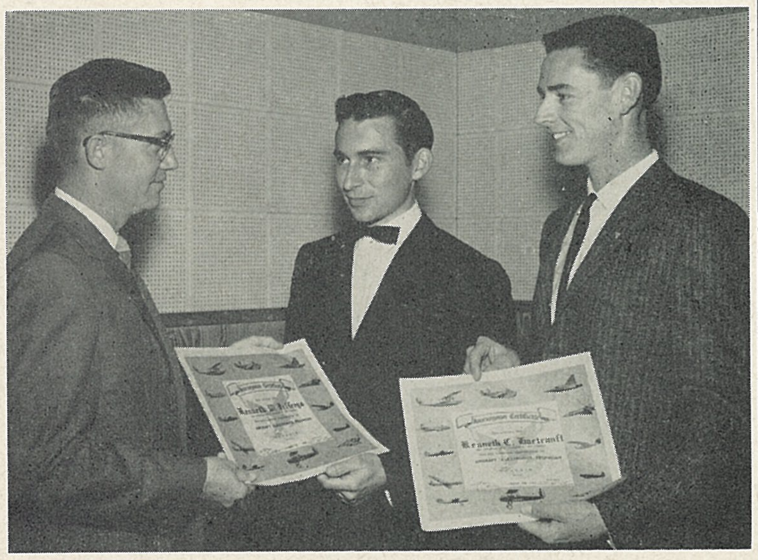
Two SD Dept. 6 men, John Rittweger and John Lievens, have been elected educational vice president and administrative vice president, respectively, of the Hospitality Toastmasters Club.

The group is presently planning a special eight-week course in public speaking tentatively scheduled to start May 24. It will meet between 7 and 9:30 p.m. Tuesday evenings at the Haynes Streamliner.

For information contact Lievens, JU-2-2662.

DEPT. 8 SCHEDULES PICNIC THIS SUNDAY

Industrial engineering (Dept. 8) folk will stage their annual picnic at Pecan Park this Sunday (May 15) from 10 a.m. to 6 p.m. Games, contests, door and raffle prizes are planned. Picnic chairman is E. F. Devlin.



COURSE COMPLETED—K. W. Jeffreys (center) and K. C. Hartranft (right) receive journeyman certificates from R. E. Honer, manager of SD electronics, upon completion of four-year electronics technician apprenticeship program.

★ Convairiety ★

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SD Editorial Offices, Building 32, Plant 1, ext. 1071. Staff: Grayce Fath, Helen Pemberton, Fred Bettinger.

Astronautics Editorial Offices, Bldg. 8, Astro site, ext. 3322. Staff: Bryan Weickersheimmer, news editor; Alyce Martin. News contacts: AFMTC, Evelyn Poole, ext. 4011; Warren AFB, Bill Jack, ext. 7-2254. Offutt AFB, David Reichenbacher, ext. 264, Cherry Gocken, ext. 348.

FW Editorial Offices, Col. 73C, ext. 2961. Mailing address: Convairiety, Convair, Fort Worth, Texas. Telephone PErshing 8-7311. Staff: Dave Lewis, news editor; Susan Bagby, Mary Beck.

Pomona Editorial Offices, Room K-222, Bldg. 2, ext. 6226, mail zone 3-8. Staff: James Combs Jr., news editor; Dorothy Keller.

Antelope Valley Editorial Office, Room 103, Bldg. 301 B, Palmdale, ext. 337. Staff: Richard L. Millett.

Convair Doing Big Spare Parts Business at SD

(Continued from Page 1)
placed, there are separate organizations.

Parts to support commercial craft are supplied in a constant flow as orders are received from airlines during the "life" of the plane. For this purpose a huge parts inventory is maintained at the Rose Canyon material handling and shipping center. Commercial orders are processed over the new "transceiver" network (**Convairiety**, March 14).

Spares and ground support equipment to support Convair's F-102s and F-106s, on the other hand, are ordered by the Air Force, under the "prime" contract, concurrent with the production plane, according to L. R. Nieder, service parts military supervisor of the call contract administration and expedite section.

Later, usually after the plane has been in service with the Air Force about a year, a reprovisioning conference is held, bringing together Air Force and Convair experts.

Based on their year of operating experience the Air Force usually places an additional order. Additional priority and replenishment orders are placed by the Air Force under "call" contracts.

From both ends of the operation, military and commercial, parts sales has earned itself the reputation of being one of the most efficient and speedy operations of its type in the aircraft industry.

SD has a particularly good record when it comes to keeping its interceptors from being AOCP (airplane out of commission for parts).

Service parts military expediting section during 1958 sent parts out in an average of 1.1 days after receiving requests. In 1959, the average dipped even more, down to one-third of a day.

A direct teletype hookup between service parts (3250 Fordham St.) and SAAMA (San Antonio Air Materiel Area) speeds all expedite requests for spares from the Air Force.

Another direct teletype hookup between service parts and the Rose Canyon warehouse and shipping center soon chatters with all information available as to the status of the spare desired.

In some cases the particular part may be an order through four or five contracts. Shipping is quickly diverted so that the spare is sent directly to the location where it is needed.

Also important to the success and efficiency of the military spares sales effort are 14 logistics support representatives assigned to Air Force bases flying F-102s and F-106s.

According to R. H. Gill, assistant supervisor of logistics support representatives, their primary job is to assist the Air Force in procurement and identification of parts for the F-106 and F-102.

Other major facets of the spares program are military training units and modification kits, and sale of such publications as flight handbooks, overhaul and maintenance kits and parts catalogs.

PUBLIC RELATIONS OFFICE SHIFTED

Community and public relations at Convair San Diego are in a new location in Bldg. 1. Offices have been moved to Room 22 on the south side of administrative section off the lobby.

C. W. Greaves and his entire staff, including C. D. Wood, A. C. Welti, and Jane Dulong, are in the new location. The public relations office at Plant 2 has been discontinued. Phone extension, ext. 1641, and mail zone 2-10, remain the same.

Long range planning is expanding into the former public relations quarters. J. W. Dixon, manager of long range planning, is now located in Room 7A.



BIG DAY—May 1 was red letter day as Convair 880 jet transport received FAA certification. C. R. Hawks, FAA, acting chief engineer, fourth region (at right), hands air worthiness-type certificate to T. W. Sanford Jr., FAA engineering coordinator for Convair, while (from left) Ken Ward, Convair SD assistant project engineer, and R. L. Runnalls, commercial flight test FAA coordinator for Convair, approve.

56 on Campster Building List, Production Starts This Week

Production of campsters, suitable for mounting on either pickup truck or trailer bed, started this week at the CRA boat building facility, Gillespie Field.

Fifty-six Convair SD and Astro persons signed up for the campster building program at a meeting last month. Positions on the list were decided by means of a drawing.

R. W. Menzie, SD CRA commissioner, said more than 200 persons attended the meeting. He said they decided to purchase pre-cut campsters rather than buy salvage material piece by piece.

Spray guns, hand power tools and other equipment needed to make the campsters will be available at the CRA Gillespie Field facility, Menzie said. Information as to how the program is progressing will be posted on a bulletin board in the clubhouse at Gillespie.

Visitors are invited to watch the campsters being built on weekday evenings and all-day Saturday and Sunday. Additions to the campster-building list are being taken at employee services, both SD and Astro.

Ground School Discontinued During Summer

Ground school courses for both private and commercial licenses will be temporarily discontinued for at least three months, V. E. Korski, CRA commissioner, said last week.

"We have decided to discontinue the courses in order that we can bring material up-to-date, and restock the film and record library," Korski said.

Both classes are sponsored by the CRA Solo Flyers and have been held at Jim's Air Service, Lindbergh Field.

Rex Robinson, ground school instructor, said the private license course will wind up at the end of May. Interested folk are invited to attend the remaining classes held Wednesday evenings, between 7:30 and 9:30 p.m. A complete review of all course material will be presented during the last classes this month.

Robinson will be taking a well-deserved rest from his teaching duties. He has instructed class after class, almost without interruption, for the past three-and-one-half years.

More than 350 students have taken the course, many of whom have earned their private pilot's license. The instruction has been tentatively scheduled to start again in September.

Tropical Fish Club Seats New Officers

Marie Yohe (Dept. 400) as president headed a new slate of officers installed by the CRA Tropical Fish Club at a meeting last night.

Also assuming office were Dick Rowe (Dept. 292), vice president, and Bob Martin (Dept. 401), secretary-treasurer.

Regular meetings of the Tropical Fish Club are held the second Tuesday of the month in the CRA Clubhouse, Pacific Hwy., at 7:30 p.m. Workshop sessions, at which members build aquariums, and other equipment, are held each Tuesday and Thursday evening in the Pacific Hwy. clubhouse between 7 and 9 p.m.

COURSE IN PROGRESS ON BAR REVIEW

Ninth "Joseph O. Debus Bar Review Course" for law school graduates who intend to take the next California Bar Examination is now in progress at the downtown California Western campus, 1729 5th Ave. Information can be obtained by contacting Bonita Kennedy, GA-4-9245.

Convair Girl Science Winner

A scientific-minded Convair SD daughter is in Indianapolis, Ind., this week displaying her prize-winning exhibit at the National Science Fair, May 11-14.

Sylvia Lane Andres, 16, daughter of Leonard Andres (Dept. 146), won the trip by sweeping the senior girls' division at the recent San Diego Science Fair.

Her entry, "Aseptic Culture of Plants," demonstrated how plants can be grown in a sterile environment as a step in the isolation of bacteria. She worked over the last eight months to raise tomato plants in nutrient solution within an airtight aquarium.

Next research project of the Kearny High School 11th grader will be to raise bearing plants in the same type of environment. Her greatest problem, she explained, was the sterilization of seeds. Common household cleaning solution did the trick.

SERVICE PUBLICATIONS PLANS ANNUAL PICNIC

Service publications (Dept. 15-6) will hold its annual family picnic at Pecan Park on June 19. Chairman of the committee handling arrangements is Jim Fergus, ext. 2797, Plant 1. Others on the committee are Mary Sanford, Joyce Johnson, Lee Pierson, Mary Carty, Marge Davis, Grant Saelor, and Tom Mathews.

Discount Available For Ice Spectacle

Discount exchange tickets worth 50¢, are available at SD and Astro employee services outlets for the May 23 and 24 performances of the Ice Capades at Westgate Park.

They can be exchanged at the Monday and Tuesday evening performances for a 50¢ reduction on all tickets with the exception of the $2 seats.

Tons of Electronic Equipment For Air Force Produced at San Diego

Antenna units for an electronics system constructed by Convair San Diego electronics department for Stromberg-Carlson Division of General Dynamics Corporation, under a $3½-million contract, are nearing completion.

The assemblies, consisting of antennas, towers, and radomes built by Convair SD electronics, will make up the system developed for the Air Force, according to R. E. Honer, manager of SD electronics. Over 120 tons of electronic equipment, enough to fill 15 freight cars, is ready for shipment at the SD plant.

First component completed under the first phase of the current contract, a boresight console, was delivered to Stromberg-Carlson's Rochester, N. Y., plant last fall.

Units being developed under the final phase of the project are in systems acceptance testing at the San Diego plant, T. B. Taylor, project engineer for the program, reported. D. W. Graybill, electronics project engineer, was responsible for direction of the work throughout its initial phase. B. G. Ward recently has been assigned project office responsibility for remaining tasks on the program.

Assemblies in final stages of completion are tracking antennas. During the next couple of months they will be proved out in an open area south of Bldg. 72 at Convair San Diego Plant 1.

The entire system consists of a group of antenna assemblies to cover various frequencies, and a control center to coordinate reception of signals, Taylor explained.

Convair San Diego electronics has been responsible for construction of the reflectors and pedestals, towers, microwave components in the antenna assembly, and boresight consoles to be installed in the control center for checking of antenna alignment and sensitivity.

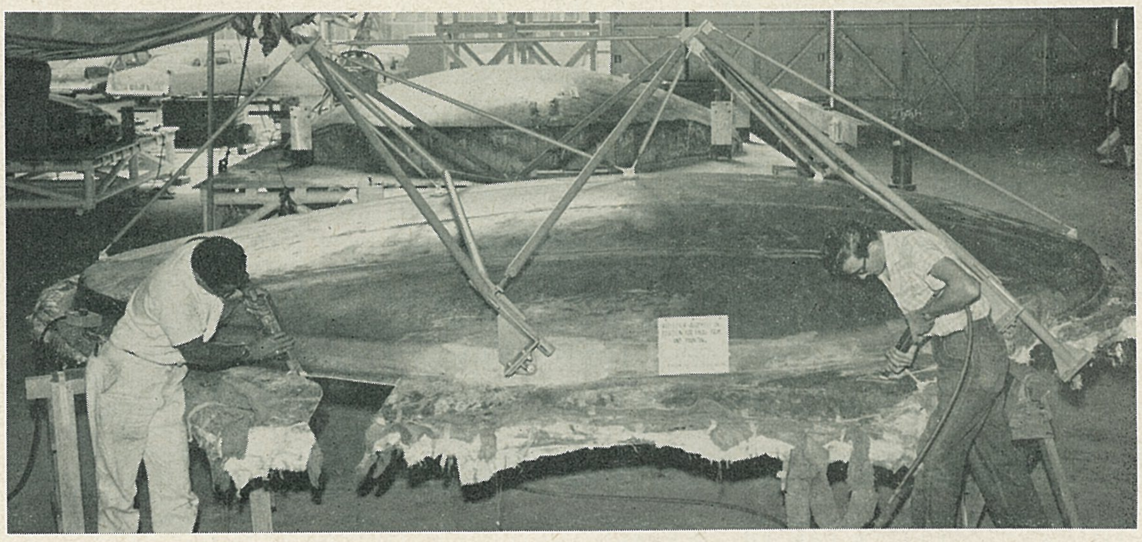
Antennas, of four different types, are dish-shaped reflectors, varying in working area diameters. They will be enclosed in balloon-like radomes and mounted on steel towers of different heights.

Signals picked up by the revolving reflectors are focused into a feed at their base, then to pre-amplifiers within the tower structures. From the pre-amplifiers, signals are transmitted by cable to the operations building, where they are processed through specially-constructed receivers, Stromberg-Carlson display units and data-handling equipment.

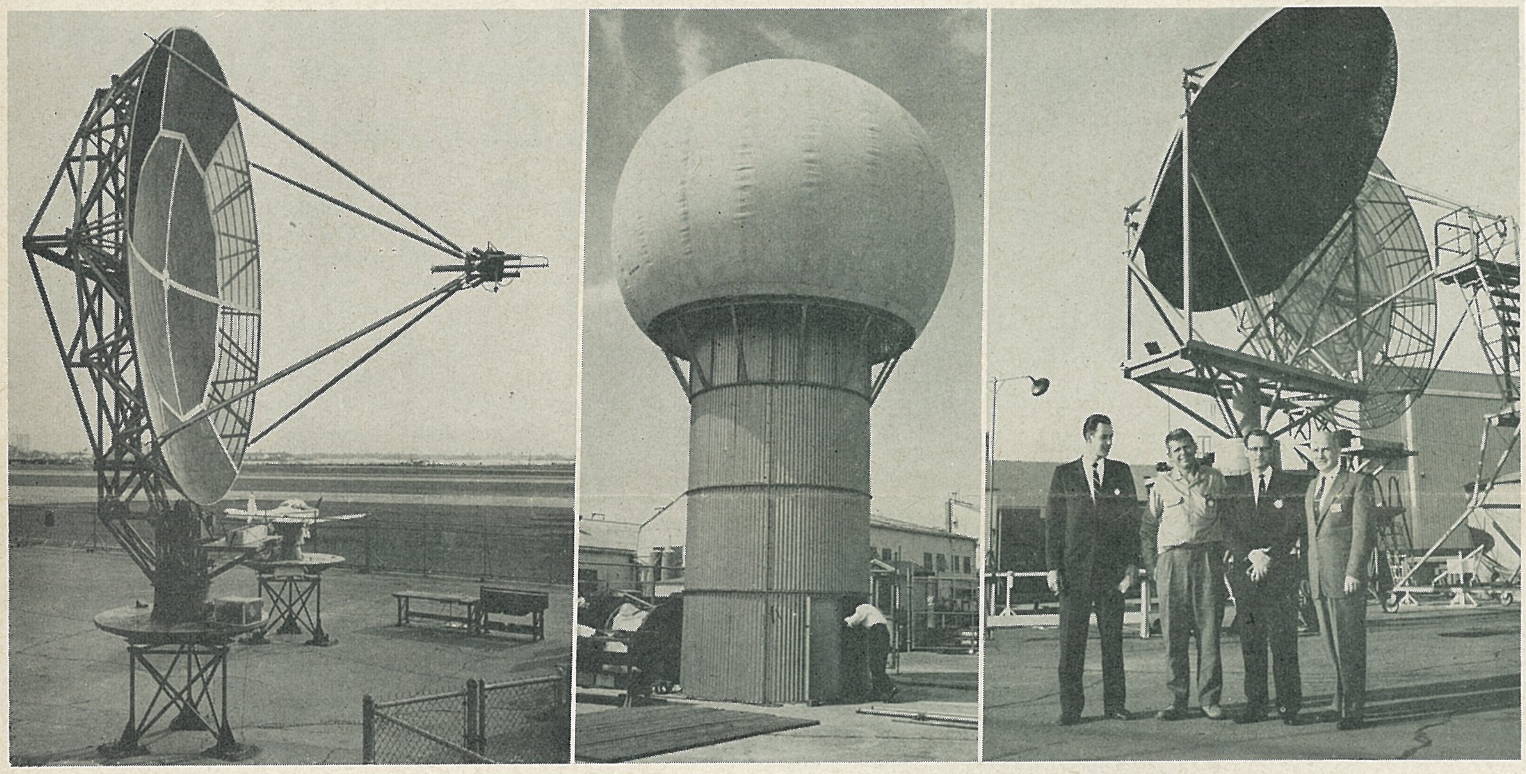
Convair San Diego electronic engineers conceived the design of reflectors, with engineering producibility determining type of materials and construction.

San Diego manufacturing development evolved manufacturing processes for one type of reflector, made of honeycomb with layers of fiber glass cloth bonded with epoxy resin. Reflecting surface of this type is tin-sprayed. Others are of expanded metal, and still a third type is composed of metal spinnings, with pie-plate circles stacked on top of each other.

Plastics production and experimental model shop built the different types of antennas; experimental factory at San Diego handled metal fabrication and machining. Other departments assisting with the project included tooling, and electronics manufacturing, which has been responsible for all electronic components.



NEAT—Ed Morris and Al DeWater, both SD Dept. 129, trim "flash" (excess cloth and resin) from reflector in plastics production area. Dish-shaped reflector, made of honeycomb base with layers of glass cloth bonded with epoxy resin, is for use in Air Force electronic project.



WATCHERS—At left is monitor antenna during checkout in Convair SD experimental yard, while in center is tower complex. Antenna revolves within balloon-like radome. At right are four of key men in program to build electronic system for Air Force. From left, T. B. Taylor, project engineer; Jack Norvall, test engineer; W. R. Monks, senior design engineer, all of SD electronics; A. N. Paul, head of Stromberg-Carlson mechanical design section at Rochester, N. Y.

Budros Shifts From FW as Aide to Biron

James L. Budros, personnel manager at Convair Fort Worth since the fall of 1953, next week will report to General Offices as assistant to R. H. Biron, vice president-administration.



J. L. Budros

Budros succeeds Robert F. Smith who has left the company to be executive manager of the San Diego convention and tourist bureau. He formerly was chief of educational services at Astronautics.

A Convair man since 1942 when he was a safety engineer at San Diego operating division, Budros had experience in other industrial relations activities before transferring to Fort Worth in 1948 as head of the safety section. Later, education section was added to his responsibilities and in 1951 he was named labor relations supervisor. In 1953 he succeeded Fred Chambers as personnel manager when the latter became manager of industrial relations for FW.

Budros was graduated from San Jose State College, San Jose, Calif., and did graduate work at Stanford.

★ ★ ★

Dr. Charles L. Critchfield has resigned as Convair director of scientific research to become vice president-research of Telecomputing Corp. at Los Angeles. He will continue to serve Convair, however, as a member of the board of scientific consultants.

Dr. J. C. Clark has been temporarily appointed to the director of scientific research post.

B-58 Ejection Seat on Display At Aerospace Medical Meet

The present and future of survival equipment is taking the spotlight at the Miami, Fla., convention of the Aerospace Medical Association, in the form of a Convair FW-Stanley Aviation Corp. display.

The booth, entitled "Survival—1960," plays up the most advanced ejection seat in being, SAC's B-58 seat with aircrew restraining devices.

"Sierra Sam," Convair's full scale dummy (who rode to Miami in the car with Bill Funk, design safety specialist) is outfitted in full flight equipment and is located in the exhibited ejection seat to demonstrate restraining devices and protective equipment.

Attending the meetings as representatives of Convair are Dr. Z. N. Gaut, flight surgeon; B. A. Erickson, manager of FW flight; C. E. Bledsoe and C. R. Sierra, senior design engineers; and Funk, all of Fort Worth.

The display was prepared by FW service engineering illustrations group under the direction of design safety unit and furnishings design group.



SAM AND FRIEND—Betty Vestal, Dept. 3-4 at Convair FW, tries out B-58 escape capsule, while "Sierra Sam," full scale dummy, is strapped in latest ejection seat. Checking on display, now at Aerospace Medical Association convention, is Bill Funk, FW design safety specialist.

'Satellite Systems' Hemphill's Topic

T. M. Hemphill of Convair SD Dept. 6, preliminary design, spoke on "Satellite Systems" to a group of Naval Reserve officers enrolled in guided missile training courses at the Naval Reserve Training Center in San Diego.

Both the basic and advanced classes met in a joint session to hear Hemphill. Instructing the basic training class is Richard Stoklosa of Astro Dept. 535, while Mike Jordan of Astro Dept. 270 directs the advanced course.

Extended Weekend Ahead For Convair

A three-day weekend is in store for Convair people over Memorial Day.

Since the legal holiday falls on Monday (May 30), work will be suspended at all operating divisions that day, giving employees a three-day holiday over Saturday, Sunday, and Monday. Work will be resumed at the regular time Tuesday (May 31).

Only people required to report to work May 30 will be those in essential functions.

E. R. Weiher Appointed FW Rep. at Stanley

E. R. Weiher, chief of process control, has been appointed resident Convair FW management representative at Stanley Aviation, Frank W. Davis, Convair vice president-FW manager has announced.

"Weiher's primary task will be to help coordinate and expedite delivery of an operational B-58 capsule," Davis said, "thus ensuring that we meet our current commitments to the Air Force."

Weiher will report directly to W. C. Dietz, chief of B-58 projects.

IRE Elects Three Convair Engineers

Three Convair FW engineers were recently elected to top offices in the Fort Worth Section of the Institute of Radio Engineers for 1960-61.

They are D. G. Harman, project design engineer, chairman; W. D. Raymond, project test engineer, vice chairman; and D. R. Robertson, senior design engineer.

Hicks Renamed Secy. Of Opera Association

Marion L. Hicks, Convair FW assistant manager-contracts, was recently re-elected secretary of Fort Worth Opera Association.

This season the group is slated to present "Samson and Delilah" by Saint-Saens, Verdi's "The Masked Ball," and "La Boheme" by Puccini.

Phelps Reassigned; Kunzelman Named

Lt. Col. Roger Phelps, commanding officer of the USAF Auditor General's resident office at Convair San Diego, has been transferred to Washington, D. C.

He will be succeeded by Lt. Col. Charles Kunzelman, who is being transferred from Washington, D. C., to take over his new assignment at San Diego June 15. Capt. A. G. McManamon is in charge of the office until that time.

Lieutenant Colonel Phelps has been at San Diego since July, 1958. He was stationed at Convair Fort Worth for two years before his Convair SD assignment.



"E" FOR EXPERT—Pilots of 323rd FIS, Ernest Harmon AFB, Newfoundland, form "E" for cameraman to point up high rating as "Experts" in F-102As. Holding wings of 64th Air Division "A" award flag is R. J. Helm, Convair SD rep, and Lt. Col. A. J. Coleman, squadron commander.

F-102 Squadron in Newfoundland Claims Most 'Expert' Pilots

A so-called "world's record" has been chalked up by an F-102 squadron, the 323rd FIS at Ernest Harmon AFB, Newfoundland.

The squadron now claims the largest number of pilots with the highest Air Defense Command proficiency rating. So far, 27 pilots are classified "Expert" in the unit's aircraft, the Convair-built F-102As.

Prerequisites for the rating include a minimum of 1,000 hours total time and 750 hours jet fighter time; a minimum of 50 hours actual weather time with 20 actual weather approaches; two years in an ADC fighter-interceptor squadron; a minimum score of 80 per cent for five actual firing or evaluated intercepts; a written and flight examination, and upgrading by a division, or higher, tactical evaluation team member.

Lt. Col. A. J. Coleman, squadron commander, had top flying time with 4,760 hours total, and 2,456 hours jet time. He was the first squadron commander in the Eastern Air Defense Force to be upgraded to Expert in the F-102A, in April, 1958.

In congratulating the squadron on its performance and accomplishment, Lieutenant Colonel Coleman pointed out that its success was directly related to the close cooperation and teamwork between all air and ground sections of the squadron.

Representing Convair SD at the base as field service representative is R. J. Helm.

Engine Change Record Set

A record-breaking engine change for an F-106 was made during recent test flights of the Convair interceptor at Geiger Field, Spokane, Wash.

During checkout flights by C. E. Myers Jr., chief experimental test pilot for Convair, maintenance experts of the 84th CAMRON Squadron made an engine switch in just half the usual time.

Myers was in charge of flights proving out a modification installed on the F-106 engine to prevent transient yaw on takeoff. Tests had to be made with the shortest elapsed time possible between flights. A normal 8 to 9 hour engine change was completed in 4 hours, 20 minutes.

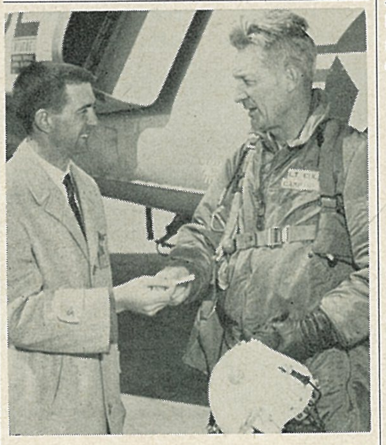
Maj. Charles W. Brown, 84th Fighter Group's chief of aircraft maintenance, said that the engine-change time was probably a world record and will be "an impossible target for other F-106 maintenance units to equal."

Convair SD field service representatives stationed at Geiger Field are C. I. Callison, T. S. Vaughan, and H. J. Schnaubelt.





TEST GROUP—In lower photo is Convair SD and AF team at Geiger Field, Wash., for demonstration of Convair-built F-106 engine test console (seen in upper shot). They are, left to right (front row): R. G. Latimer, B. Wiedermann, SAAMA, C. I. Callison, A. A. Martin, J. D. Powers, L. F. Ballou Jr., G. L. Faringer, Frank Offner. From left (back row) are J. F. O'Brien, SAAMA, Carl Zutter, Air Logistics Corp., G. J. DeLong, C. B. Cotten and D. G. Harris, SAAMA, E. M. Truitt, P. A. Wing, Paul Lyons, Roy Fullmer, J. L. Jonte. Not shown are Chief Warrant Officer J. W. Pahel, ADC rep, R. J. Reich, SD thermodynamics lab, and Ernie Flisrand, SD photographer, who took pictures.



F-106 CHECKOUT — Lt. Col. Norman W. Campion, commander of 539th FIS at McGuire AFB, N. J., receives silver delta pin from Convair SD field service representative Jim Day after recent checkout flight in F-106A.

Test Console For F-106 Checks Demonstrated

First test console, being built at Convair San Diego under an Air Force contract for checkout of F-106 engines, was demonstrated late last month at Geiger Field, Spokane, Wash.

Designed to ease the task of line maintenance in F-106 squadrons, the quick engine change test console facilitates the checkout of interceptor engines and components before installation in aircraft. It can be operated by remote control with a portable control panel mounted in the test building where operators can detect faulty engine operation.

First test console has been assigned permanently to Geiger Field, with the next three preproduction articles slated for McGuire AFB, N.J., Andrews AFB, Md., and Minot, N. D. Two probably will be completed and ready for delivery this month.

Under the current contract delivery on 12 production units will start by the end of this year.

San Diego's propulsion design group, under P. W. Corbett, group engineer, has been responsible for concept of the QEC test console. Dept. 31 is in charge of production.

A group of 14 Convair SD men from engineering, service parts, service publications, and experimental departments, headed by L. F. Ballou Jr., design specialist in SD propulsion, accompanied the first unit to the Spokane base. They were: R. G. Latimer, A. A. Martin, J. D. Powers, G. L. Faringer, Frank Offner, G. J. DeLong, E. M. Truitt, P. A. Wing, Paul Lyons, Roy Fullmer, J. L. Jonte, R. J. Reich, Ballou, and Ernie Flisrand, SD photographer.

Fort Worth Junior Achiever Named Top Salesman in U. S.

Top junior salesman in the nation is Jerry Katz, president of Convair FW Management Club's Cojac Junior Achievement Company.

Katz won the national competition in New York when he sold a Cojac-made towel rack to Miss Bess Meyerson, former Miss America, now a television personality. The sales pitch was made before 200 members of the New York Sales Executive Club, who acted as judges.

Competing with four other regional contest winners, Katz represented the Southwest JA region. He won the southwest competition recently in Baton Rouge, La.

During his visit to New York he visited with C. Rhoades MacBride, executive vice president of General Dynamics Corporation. A tour of General Dynamics offices was given Katz and Cojac's general adviser, G. V. Pardue of FW Dept. 19, who accompanied Katz on his trip.

A $1,000 college scholarship is the prize Katz, senior at Paschal High School, will receive.

Later this month he will return to New York where he will be a guest at the convention of the National Sales Executives organization in Buffalo.

First F-106s Arrive At Tacoma, Wash.

First two F-106s scheduled for McChord AFB, Tacoma, Wash., arrived there in late March.

The 318th Fighter-Interceptor Squadron at McChord now is in the process of transitioning from the Convair-built F-102s to the supersonic F-106 interceptors, also built at Convair SD's Plant 2.

As soon as a full complement of F-106s, approximately 18, is received and pilots of the 318th are checked out in the new aircraft, the squadron will be placed on alert duty status.

Trash Removal Train Running

A new train is making runs every day through Bldgs. 2 and 3 at Convair SD Plant 1 for systematic removal of refuse.

The trailer train, pulled by a jeep, went into operation recently to pick up full containers of trash and leave empty tubs at locations spotted throughout the two buildings. Under responsibility of B. R. Hisaw, chief of transportation operations, the new pickup system will keep the buildings cleared of refuse with a minimum use of manpower.

Tubs are hauled to the salvage yard for disposal.

At present, the jeep-propelled trailer train is making continuous runs starting at 8 a.m., although a schedule for regular pickup times will go into effect as soon as possible, said Ralph Montgomery, Dept. 21 foreman.

Persistence Pays as Astro Girl Literally Plays 'Numbers Game,' Wins Paris Trip

When in doubt—count!

It pays, according to Astronautics' Annea Nicholsen (Dept. 120-6) who departs this month for a free trip to Paris where she will have the use of a French car and a $400 wardrobe.

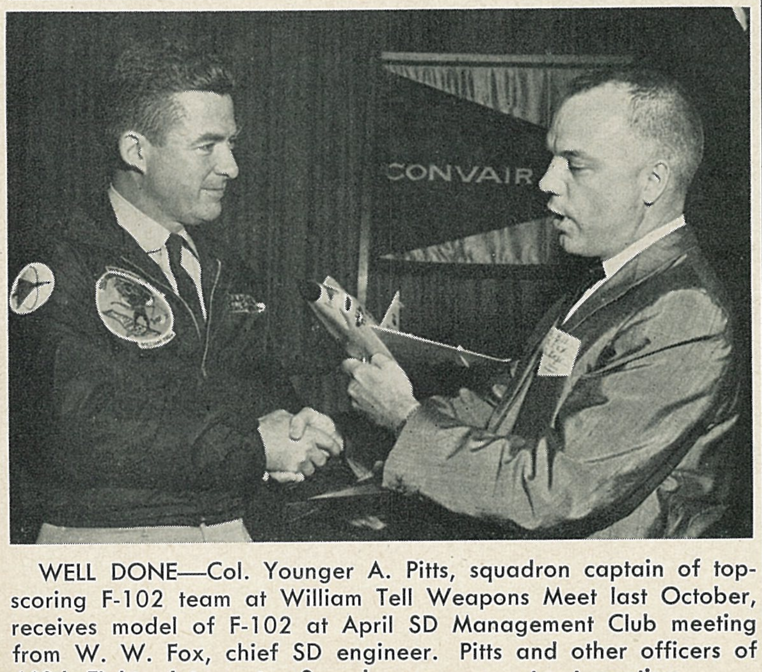
A local foreign car agency staged a contest. One of their cars was literally covered with the call letters of a radio station. Participants were asked to guess how many times the call had been repeated.

Most people did just that—guessed. Annea and her parents didn't. They spent several hours counting. It paid off. Annea placed first with her mother and father finishing second and third.

(Annea counted 1,542. There were 1,545!)

The Astro artist and her parents had been saving for years to visit Norway where all were born.

With the contest winnings, plus their savings, Annea and her mother will visit Norway, plus various other points in Europe.



WELL DONE—Col. Younger A. Pitts, squadron captain of top-scoring F-102 team at William Tell Weapons Meet last October, receives model of F-102 at April SD Management Club meeting from W. W. Fox, chief SD engineer. Pitts and other officers of 460th Fighter-Interceptor Squadron were guests at meeting.

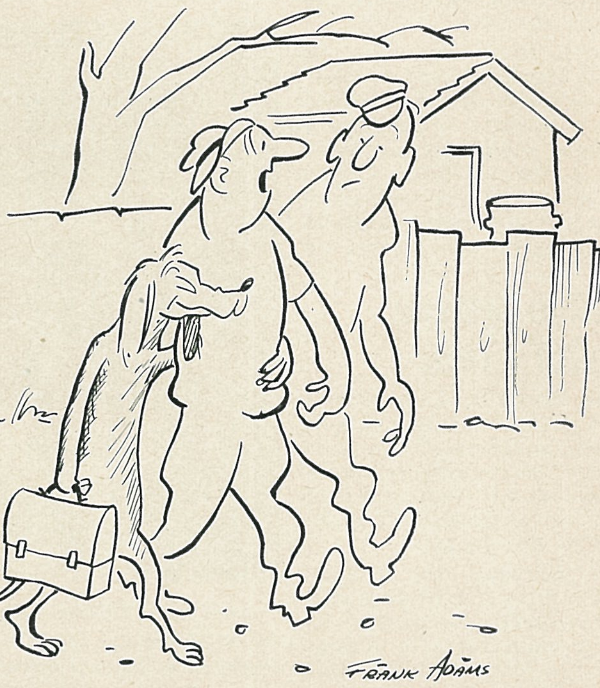
Blair Host To Librarians

Keith Blair, Convair SD chief librarian, was host and chairman of arrangements for the May 7 gathering of Southern California chapters of Special Libraries Association at the Stardust Hotel at San Diego.

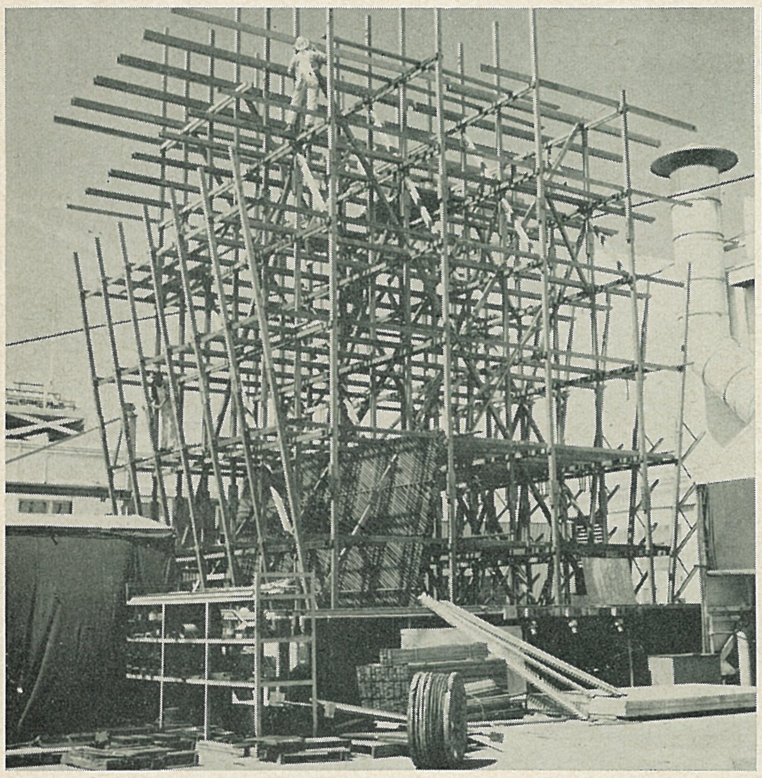
About 200 industrial librarians heard H. P. Luhn of IBM advanced systems development division, Yorktown Heights, N. Y., explain "Automation as an Aid to Librarians in Scientific Communications."

Following the meeting the entire group visited the Convair SD library and saw the 880 production area.

Blair is membership committee chairman for the newly-organized San Diego chapter of the national library group, while Lou Canter, Astro librarian, serves as treasurer.



"I made my first mistake when I named him 'Pal' . . ."



WATER COOLER—First stage in cooling water for new air conditioning system for Bldgs. 5 and 51 at SD Plant 1 is 46-ft. tower shown under construction in experimental yard. 4,400 gallons will pass through tower every minute.

SD Bldgs. 5 and 51 Air Conditioning Goes Into Action This Week

Occupants of Bldgs. 5 and 51 at Convair San Diego Plant 1 are revelling in cool air this week.

Air conditioning system for the engineering building was turned on Monday, a week ahead of schedule, said H. A. Smith, chief plant engineer.

The 46-ft. water cooling tower just erected in experimental yard at the rear of Bldg. 5 was final installation for the system. One of the first of its type to be built in San Diego, the cross-flow tower cools the water used in the air conditioning refrigeration system. Pumped continuously through the tower, water is cooled from 98.5 degrees to 80 degrees. Capacity is 4,400 gallons per minute.

Temperature of the water is then brought down to 45 degrees in the refrigeration unit. Air within the buildings is chilled as it passes over the cold water coils.

Marley Co., cooling tower manufacturers of Kansas City, Mo., was in charge of construction of Convair SD's tower with William Crail Construction Co. installing piping; Chula Vista Electric Co., electrical wiring; and A. Rossi Construction Co., concrete work.

Control of Consolidated Aircraft Passes From Reuben Fleet to Avco

(This installment in Convair's continuing history, No. 34, covers a shift in control of Consolidated and concludes Reuben Fleet's active participation in Consolidated's affairs.)

Reuben Fleet was only 54 and his company was expanding vastly, but he decided during 1941 to sell his holdings and retire.

Looking back on this move 15 years later, he gave near-confiscatory taxes as his prime incentive. The federal government took about 93 per cent of his income and the State of California 6 per cent, he recalled. "I couldn't see carrying that load of poles any longer."

Fleet must have been growing restive, too, under conditions he never had been willing to tolerate: increased "meddling" in company affairs by the defense agencies directing industrial mobilization; and loss to sheer bigness of the close, one-man direction he always wanted to exercise. (He still retained the three top titles—chairman, president and general manager.)

His stockholdings (nearly one-third) would give any purchaser control of the company. Since Consolidated was a key producer in Army-Navy aircraft schedules, many in Washington were concerned that competent management be found. Among officials who took part in recurrent discussions of "finding a buyer," Fleet has listed Navy Undersecretary James V. Forrestal, Rear Adm. John H. Towers, chief of the Bureau of Aeronautics, War Undersecretary Robert P. Patterson and Gen. H. H. Arnold.



FOUNDER—With this installment of Convair's history, Founder Reuben Fleet retires from scene. Above is recent picture of Fleet.

As early as July, 1941, there was a Washington-sponsored proposal that the Aviation Corp., a holding company, swing the transaction through its manufacturing subsidiary, Vultee Aircraft Corp. of Downey, Calif. Victor Emanuel, Avco president, had a four-day survey made at San Diego early in August by Vultee's top men, Harry Woodhead, chairman, and Richard W. Miller, president. Negotiations with Fleet ensued, but Avco withdrew in mid-August.

There were more fruitless suggestions from Washington. In October Fleet was considering the possibility of offering his stock at public sale. The Avco negotiations were revived soon afterwards, however, and it was announced Nov. 28 that Vultee would purchase the 440,000 shares owned or controlled by Fleet (34.26 of the total outstanding) for $10,945,000. Transfer of stock was effected Dec. 19 and the Avco-Vultee management took over.

* * *

Last Message On Christmas

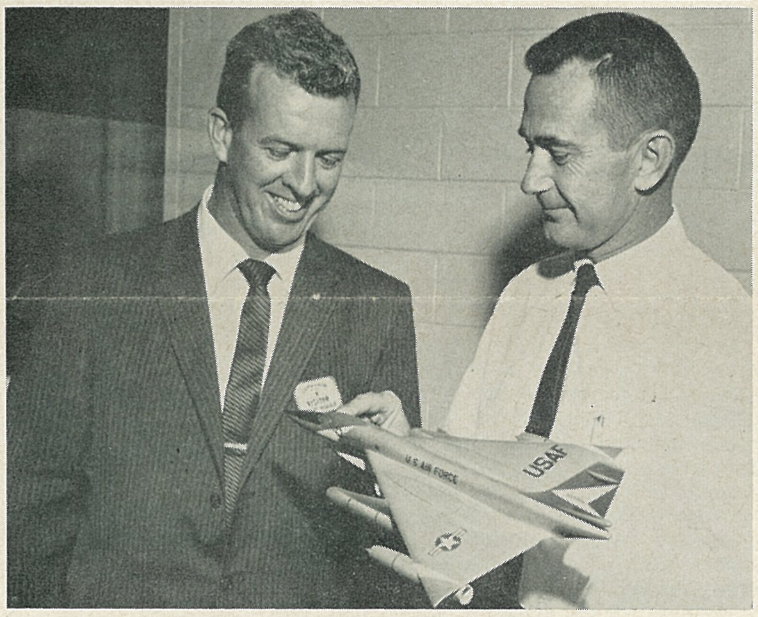
Consolidated Aircraft's house magazine, "Consolidator," carried in its December, 1941, issue Reuben Fleet's "Christmas Message," which, incidentally, was his last message as head of the company. (Evidently, it was written prior to Pearl Harbor.) Following are excerpts, reminiscent of the grim outlook of those days.

"It would seem difficult to wish anyone a Merry Christmas this year . . . The tangle of world events, the unholy morass of world thought and philosophy, lead one to the seemingly inevitable conclusion that A.D. 1941 must be chalked up as a complete loss.

"This, fortunately, is a misconception. No year, no month, no minute of human life is really lived in vain . . . It has been a year in which cloudy ideals have been sharpened by the swift change of events, when hazy principles have been brought into focus by the necessity for quick, sure action. . . .

"True, we have had to change during the last year. We were getting soft. We were taking it easy, resting upon the smugness of our geographical location and delusions of our own grandeur. But gradually it came to us that our closest international kin was actually endangered. Above the coastal roar of guns along the English Channel, above the din of Stukas diving upon Britain's populace, it came to us that we were no longer safe.

"The (Christmas) spirit of giving has never been more apparent or more necessary as a national policy. We have given much of our substance during the past year. We shall give more of our substance and of our spirit during the next. Sacrifices made during 1941 will seem insignificant indeed compared with those we shall make before this battle is won. . . "



SUPERSONIC SCUTTLEBUTT—When old friends B. A. Erickson, right, Convair FW manager of flight, and Joe Walker, X-15 test pilot, got together recently, discussion was on high-performance aircraft. Both are experts on subject.

X-15 Pilot Inspects B-58; May Fly to 50 Miles Up

Joe Walker, who may soon make the first manned flight into space, considers the B-58 cockpit "practical and functional" and the flight prospects of the Hustler itself "exciting."

Walker browsed around the B-58 pilot's cockpit during a brief conference here recently with B. A. Erickson, Convair FW manager of flight.

He stopped over en route to his Lancaster, Calif., home, following a speaking engagement before the IAS at SMU.

Walker, a pilot for National Aeronautics and Space Administration, even looks forward to the day when NASA "might possibly" get a Hustler for evaluation and research purposes.

"It's not out of the question, and we'd love to have the plane," he said.

Either Walker or the Air Force's Maj. Robert White is currently scheduled to take the famed X-15 on man's first flight into space—probably early in 1961. The two pilots are now putting the plane through its supersonic paces at NASA Flight Research Center at Edwards AFB.

Plans now call for the needle-nosed X-15 to make a 50-mile probe into space, reaching a maximum speed of about 4,000 miles an hour.

Such a foray would double the existing altitude record for manned aircraft. Walker feels confident the flight will go off "as advertised."

"In X-15 flights to date we've flown over 80,000 feet and at speeds of Mach 2.6—about 1,700 miles an hour," Walker said.

The X-15 is now being flown with interim engines, which will soon be replaced with engines of design specification.

"We'll probably spend this summer checking out the new engines and getting everything in order for the flight in 1961," Walker commented.

A veteran P-38 pilot of World War II who has flown virtually every type of supersonic aircraft in the air today, Walker thinks the X-15 is "easy to handle" and capable eventually of reaching its maximum design altitude of 100 miles.

After World War II, Walker flew for the National Advisory Committee for Aeronautics, forerunner of NASA.

The man who may, by this time next year, have flown faster and farther up than any other human, foresees a decade of even greater speeds.

"I wouldn't be surprised to see men reach orbital velocity (about 20,000 feet a second) during the decade," he said.

NEWS FROM OTHER DYNAMICS DIVISIONS

General Dynamics Corporation, created in April, 1952, as successor to Electric Boat Company, is composed of seven divisions and a Canadian subsidiary, Canadair Limited, of Montreal, airframe builders. The divisions are:

Convair, head offices at San Diego, Calif., aircraft, missiles, and space systems.

Electric Boat of Groton, Conn., submarines.

Stromberg-Carlson, of Rochester, N. Y., telecommunications, electronic equipment.

Liquid Carbonic of Chicago, Ill., carbon dioxide producer, industrial and medical gases.

General Atomic of San Diego, Calif., nuclear research, development, production.

Electro Dynamic of Bayonne, N. J., electric motors, generators.

Material Service Division, Chicago, Ill., building materials, concrete products and coal.

* * *

Design Program Wins Award

The Art Directors Club of New York has presented General Dynamics Corporation with an "Award to Management" for its 1959 design program.

Frank Pace Jr., chairman of the board, accepted the award on behalf of the Corporation. The award citation said the presentation was made "...for the inspired, integrated design program of General Dynamics, resulting in consistently high standards of excellence in its corporate identity."

Dynamics also received an award of distinctive merit for its 1958 annual report.

John Thurston Named Special Projects VP

NEW YORK—John F. Thurston has been promoted to the position of vice president for special projects of General Dynamics Corporation.

Thurston, who was formerly general manager of the corporation's Electro Dynamic Division in Bayonne, N.J., has been with General Dynamics in that position since 1955. He became a vice president of the corporation in 1957.

Pace on Institute History Program

Frank Pace Jr., chairman of the board of General Dynamics Corporation, was among the more than 50 Americans honored by the Research Institute of America as "those who have made history" during the past 25 years.

A pageant celebrating the 25th anniversary of the institute, featured a filmed record of the "The living history of the critical years, 1935 - 1960." Prepared by historian Allen Nevins, the historical record was flashed on a giant screen for an audience of 1,500 people.

Television cameras picked out from their positions on the dais those who had helped make the history, showing their pictures on the screen at the appropriate moment.

Welsh Resigns as VP, Forms Own Concern

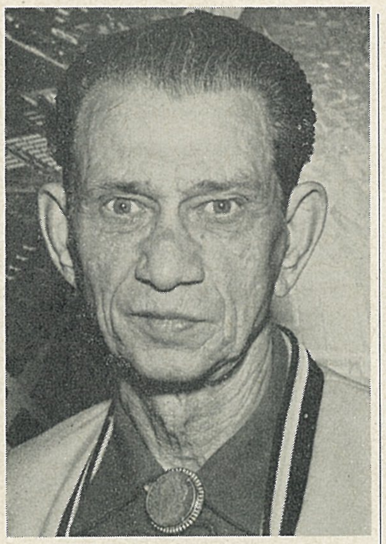
NEW YORK—Vernon M. Welsh, vice president for communication of General Dynamics Corporation, has resigned to organize his own communication consultation business. As an independent consultant Mr. Welsh will continue to be associated with General Dynamics on specific projects.

Security Risks We Can Do Without



EVEN STEPHEN

"Well, gosh, he told me all about his job in the pants factory—least I could do was tell him about mine!"



QUARTER CENTURY—Clarence S. Halsey, SD Dept. 136, received his 25-year service emblem early last month.

Log Book Entries

Service Emblems

SAN DIEGO

Service emblems due during the period May 1 through May 15.

Twenty-year: Dept. 6, A. W. Kellogg, K. R. Lemley; Dept. 25, Dewey Rinks, J. W. Vint; Dept. 31, W. J. Butts, D. W. Evers, E. M. Moore, W. E. Porter; Dept. 34, R. C. Fildes; Dept. 135, L. F. Cescolini; Dept. 138, V. T. Winsor; Dept. 171, R. W. Avila; Dept. 188, A. N. Ennis; Dept. 192, F. L. Olson; Dept. 197, L. J. Francis; Dept. 400, L. G. Bovee.

Fifteen-year: Dept. 6, M. C. Harter; Dept. 44, M. M. Overdeer; Dept. 68, G. D. Lindeneau; Dept. 218, R. R. Lee; Dept. 400, Lora M. Young; Dept. 401, C. V. Fleischer.

Ten-year: Dept. 6, E. R. Chapman, F. R. Demassa, R. J. Franc, R. B. Hayes, R. T. Larson, Eula C. Stuart; Dept. 7, J. O. Tollett; Dept. 8, W. E. Sparks; Dept. 14, G. F. Grant, R. A. Hamrick; Dept. 15, Stephen Andreco.

Dept. 21, J. E. Hittle; Dept. 25, William Hurney, C. J. Kassmann, G. H. Moen, D. R. Sperandio, G. B. Watwood; Dept. 31, Carl Behrens, R. L. Brockway, C. W. Grierson, J. H. Seedorf; Dept. 44, V. T. Broach; Dept. 102, W. A. Markowski; Dept. 135, F. F. Murasky; Dept. 137, R. H. Pierce.

Dept. 138, E. G. Stoddard; Dept. 143, Adolph Huchthausen; Dept. 146, D. C. Lakin, T. W. Smith; Dept. 160, John Sebetic; Dept. 170, J. L. Gallagher; Dept. 171, Leovigildo Alvarez; Dept. 188, A. F. Wollgast; Dept. 192, Edna H. Vanlerberghe; Dept. 197, L. R. Bushyager; Dept. 201, R. B. DeVroy; Dept. 217, S. V. Teehan; Dept. 231, Pearl W. Garrison; Dept. 233, Betty T. Brown, Annie R. Vinson; Dept. 267, C. J. Agosto; Dept. 280, N. V. Descoteau; Dept. 288, E. J. Moore, Margaret W. Tracy.

Retirements

SAN DIEGO

BAIN—Gordon F., Dept. 216. Seniority date Oct. 12, 1950, retirement effective April 29, 1960.

BREWER—Chester A., Dept. 25. Seniority date Dec. 4, 1950, retirement effective April 30, 1960.

BURNS—Arthur S., Dept. 216. Seniority date April 19, 1950, retirement effective April 22, 1960.

CLINE—John G., Dept. 25. Seniority date Dec. 3, 1951, retirement effective April 29, 1960.

COLCLASSER—Stewart M., Dept. 31. Seniority date April 12, 1951, retirement effective April 29, 1960.

GOLDMANN—John G., Dept. 401. Seniority date Nov. 17, 1950, retirement effective April 30, 1960.

HARGER—Fred, Dept. 401. Seniority date Sept. 17, 1931, retirement effective April 30, 1960.

HIGHFILL—John L., Dept. 401. Seniority date May 28, 1954, retirement effective April 7, 1960.

SMITH—Harry W., Dept. 215. Seniority date Sept. 8, 1953, retirement effective April 28, 1960.

SOTO—Francisco E., Dept. 25. Seniority date Oct. 8, 1956, retirement effective April 30, 1960.

Personals

SAN DIEGO

I send my sincere thanks to all Convair employees for the beautiful flowers and for the sympathy expressed at the death of my husband, Roy A. Miller. They were deeply appreciated and a comfort to me.

Mrs. R. A. Miller

* * *

The kind expressions of sympathy from our Convair friends are deeply appreciated.

Dorothy Dust, Dept. 98-6
William Dust, Dept. 6

Births

SAN DIEGO

MAZZILLI—Son, David Charles, 6 lbs., 7½ oz., born April 28 to Mr. and Mrs. Sam Mazzilli, Dept. 201.

NORMAN—Son, Brent D., 7 lbs., 1 oz., born April 7 to Mr. and Mrs. L. L. Norman, Dept. 401-8.

RECTOR—Daughter, Charlene, 6 lbs., 8 oz., born April 26 to Mr. and Mrs. Charles L. Rector, Dept. 401.

Deaths

FARNUM—Willis H., Dept. 180. Died May 3. Survived by wife, Cleo; two sons, daughter, two brothers, grandson.

HAHN—Jacob, Dept. 180. Died April 23. Survived by wife, Alma; daughter, Mrs. Jacqueline Beck; two brothers and four sisters.

HUDSON—Lela O., Dept. 99 (formerly Dept. 216). Died April 29. Survived by husband, Jerry; a son, her mother, two sisters and a brother.

McTIMMONDS—Chauncey M., Dept. 99 (formerly Dept. 271). Died April 26. Survived by wife, Carmen; daughter, Sarah McTimmonds; three brothers and three sisters.

PLAGWICZ—Wanda, Dept. 93. Died in traffic accident May 4. Survived by husband, Matthew.

Swing Shift Keg Leagues Finish Play

Six Convair SD swing-shift bowling leagues ended play last month at Pacific Recreation, Tower Bowl, and Lemon Grove Bowlero, Mike Brooks, co-commissioner of bowling, reports.

Top team in the Trio League at Pacific Recreation was the Alley Pals, composed of Joe Arnieri, Lee Terry and Lee Worden. John Dravland and Bob Zwolinski came in first in the Swinger's Doubles League.

Winning team members of the Convair 850 League at Tower Bowl were Jim Owen, Frank DeGuide, John Gay, Ed Holtz, Erwin W. Jesse, Lou Lasko and Mike Compolongo (captain).

The Country Cousins paced the Convair 800 League, also at Tower Bowl. Keglers on the squad were Bryce Bludworth, Del Meredith, Jack Hammer, Milt Walker (captain), Robert Lawton, and Ken Dean.

Convairettes Doubles League was paced by the Who Cares team, staffed by Mary Jesse and Phyllis Gonzales.

At Lemon Grove Bowlero the Pards placed first. On the winning team were P. Parker, D. Alford, A. Lyons, R. Giusti, S. Danos and E. Gauthier.

As fast as winter keg leagues end, summer bowling leagues are starting.

First CRA summer leagues are set to roll tonight (May 11) and tomorrow evening at Pacific Recreation. Starting time for both is 6:30 p.m.

Convair Speakers Active in Contest

Tillman Schafer of Convair SD Dept. 6 represented the Convair Toastmasters Club as contestant in the April 26 speech contest of Toastmasters Area 5 held at the San Diego Club.

Other Convair members having parts in the contest were L. G. Lawson (Dept. 188-0), one of the judges; Cy Campbell of Astro reliability who selected titles of the impromptu speeches; Ken Samples (Dept. 6), ballot counter. Harry Morgan, also Dept. 6, presented the area award to Padres Club as best performing group during the year.

Winners of the speech contest were Marty Bouman, San Diego Club 7, first; and John McSorley, Naval Training Center Club, second.

Four Sweep Events In SD Pistol Shoot

Tallying 294 out of a possible 300 points, Joe Williamson (Dept. 401-5) registered the best Police Course score at a SD CRA Pistol Club shoot April 24.

His effort was five points better than that posted by master class runner-up, Jim Halfacre (Dept. 180).

In other shoot brackets, Ash Bishop (Dept. 401) took expert honors with 278 points and A. B. Carlson (Dept. 68) was leading sharpshooter with 268.

In the .22 Short National, Halfacre led with 286 points, followed by Williamson with 275, and Bishop with 271.

Twilight Keg League Ends Winter Activity

Winter play ended last month for the Convair SD Twilight Trio League at Pacific Recreation with 3 W's emerging team champs, winning both first and second rounds of league activity.

Individual scoring honors went to Mike Compolongo, HIG, 249, and HIS, 652. June Bugs took HTG, 574, and Space Jets won HTS with 1,632. HWG was rolled by Gloria Burham, 201, and Alice Munkelt toppled HWS with 518.

Lost & Found

ASTRONAUTICS

LOST—On Plant 2 overpass, April 27, marcasite and black enamel clip. Heirloom. Sentimental value. Reward. Call Marcelle, Plant 2, ext. 1005.



TABULATING — Finish of inter-division golf matches recently found this group making tabulations. From left across top are CRA Commissioners Ken Wulfemeyer (SD), Jim Batson (Astro) and Paul Kiszeli (Pomona). Kneeling are Herb Naish, host, and Wes La Nier, co-commissioner at Pomona. Astro won first of two yearly rounds at Gilman Hot Springs.

Meeting, Dance, High Sierra Trip Planned by SD, Astro Ski Clubs

Snow skiers from SD and Astro will view movies and slides of the Convair Open Race held recently at Mammouth Mountain at a meeting tonight (May 11) at 8 p.m. in the CRA Clubhouse, Gillespie Field.

More than 30 skiers from SD and Astro made the jaunt to Mammouth April 23-24. They were aided by snow storms that put courses in top shape for the races on Sunday.

Next event scheduled for the Convair skiers is a joint dinner-dance planned for the Gillespie Field CRA Clubhouse Saturday (May 21). It will start with a happy hour at 6:30 p.m., followed by a catered dinner at 7:30. An evening highlight will be the awarding of trophies to race winners.

A special trip is planned over the Memorial Day weekend to the High Sierras. Reservations for the trip, by de luxe bus, are being accepted from both skiers and other interested Convair SD and Astro folk.

The bus will leave Friday (May 27) at 6 p.m., return Monday about midnight. Fishermen will be able to take advantage of trout fishing streams within hailing distance of the lodges in the Sierras.

Everything is available for the skier including ski and equipment rentals, ski school, lifts and tows, etc.

Additional information and reservations can be obtained by calling Bob Weaver, ext. 1918, Astro; Joan Brennan, ext. 523, SD Plant 2; or Joe Harris, AT-4-0278.

Midget Autos Race Sundays

Spring weather in California has brought a new high in participation in Astro CRA-sponsored racing activities.

Quarter and half-midget racers from Astro hold regular business meetings the last Friday of each month at the Astro executive dining room beginning at 8 p.m. They race from about 10 a.m. each Sunday at Gillespie Field.

Astro members interested in Formula K racing take part in San Diego Formula K Club meetings with racing each Sunday beginning at 10 a.m. on the Astro parking lot.

Meanwhile, the CRA race track being developed in a ravine near the Astro plant is ready for asphalt topping. Once it is completed, Astro racing activities for all groups will be centered there.

Interested Convair SD and Astro men, who wish to learn more about the club, are invited to contact Duane Johnson of SD-Dept. 6, ext. 2240, Plant 1. Meetings are held weekly on Monday evenings.

Entries Open For Golf Club

Entries open today (May 11) for the Convair Golf Club's 1960 Championships to be played at Flying Hills and Torrey Pines June 12, 19 and 25-26.

All reservations must be made no later than 4 p.m. on Friday (June 3). Entry blanks are available from the following:

SD Plant 1. Curley Maxfield, ext. 694; Ken Wulfemeyer, ext. 1705; Jake Moore, ext. 1320.

SD Plant 2. Ted Anderson, ext. 218; Gerry Dix, ext. 1015; Alma, ext. 552.

Astro. Hal Purnell, ext. 1313; Mort Smith, ext. 1751; Jud Kenney, ext. 695. Astro golfers at Barnard School can register with Jim Batson, ext. 184. At Sycamore Canyon, Bob Longino, ext. 43, is handling reservations.

Golf Club winners April 23-24 at Caliente were led by S. T. Gmyr (SD Dept. 15) who took low gross in the first flight with 75 strokes.

A 71 took low net in the same handicap group for Dick Ramsdell (SD Dept. 267). He was trailed by Mac McCord (Astro Dept. 321), and F. W. Viering (Astro Dept. 573). Both netted 72s.

Low gross in the second flight went to Norman Dahl (SD Dept. 292) with 81. Three 72s tied for low net. They were tallied by Al Driver (SD Dept. 160), H. M. Smith (Astro Dept. 181), and J. A. Fair (Astro Dept. 250).

H. H. Moran (Astro Dept. 343) grossed an 85 in the third flight. Ed Caldwell (SD Dept. 188) and C. E. Hudepohl (Astro Dept. 344) netted 70s, followed by A. R. Tepper (SD Dept. 401) with 71.

Astro linksmen swept all places in the fourth flight. J. A. Thomas (Dept. 573) grossed 88. Sam Chewning (Dept. 591) netted 68, trailed by Chris Arapostathis (Dept. 549) and Jim Boyle Sr., both with 71s.

Convair Golf Club To Elect Officers

Officers for the 1960-61 term will be elected by Convair Golf Club members at a meeting this Friday (May 13) at 7:30 p.m. in the Balboa Park Conference Bldg.

A slate of candidates will be presented by the nominating committee but nominations will also be accepted from the floor. All SD and Astro Golf Club members are urged to attend.

Astro Golfers Lead Tourney

Astronautics continued to dominate inter-division Convair golf standings by coming in with the fewest strokes in matches staged May 1 at Gilman Hot Springs.

Trailing Astro were Convair San Diego and Convair Pomona.

Matches are held twice each year. The operating division posting the lowest number of strokes in the two matches wins possession of a perpetual trophy. Astronautics now holds the trophy, having won the two matches during 1959.

Paul Houten of Astro and Adam Grik of Pomona tied for individual honors for the day with 73 strokes, two over par. Dick Ramsdell paced Convair San Diego par chasers with a 74.

Team scores were: Astro, 1,682; San Diego, 1,745; and Pomona, 1,763.

Pomona was host at Gilman Hot Springs. Astro will act as host June 5 when second matches are held at Oceanside.

SD-Astro Shooters Second in Tourney Hosted at Palmdale

Two combined Gun Club teams from Convair SD and Astro placed second and fourth at an invitational trap shoot hosted by the Fin and Feather Club April 24 at their Palmdale range.

Shooters braved snow and strong winds, even wore mittens during the competition!

Standings were so close that only two birds separated the first-place Fin and Feather squad and the second-ranked SD-Astro team. A CRA team from Palmdale placed third, followed by another SD-Astro squad. Another Fin and Feather contingent placed fifth.

High-gun honors went to SD-Astro representatives, Jack Harshman and Bill Betteridge, who placed second and third. Team trophies went to Betteridge, George Clayton, Roy Cunningham, Jay Cushman and Ezra Johnson.

Registration Open For Dance Classes

A new series of ballroom dancing classes remains open to both Convair San Diego and Astronautics employees this week.

They are taught at the McGrath Dance Studio, 1106 Broadway at the Pacific Ballroom.

A "brush-up" social dancing session meets at 7:30 p.m. each Monday. A beginning Latin class convenes at 8:30 p.m. each Thursday. In addition, intermediate social sessions meet at 7:30 p.m. each Tuesday and intermediate Latin classes gather at 7:30 p.m. each Friday.

No advance registrations are necessary. Students may report to the class of their choice.

Disneyland Caravan Set by SD Car Club

A special Convair SD Sports Car Club caravan to Disneyland is scheduled for the May 21-22 weekend leaving the Bldg. 19 parking lot Saturday at 8 a.m.

Astro Sports Car Clubbers have been invited to participate in the event which is billed as an "Excursion for Diversion."

Members will stay overnight at a motel across from Disneyland. Reservations are required in advance. Information is available by contacting Charles Mohr, ext. 1627 or 1748, SD Plant 1.

Fencing Exhibition At Friday Meeting

Astronautics and San Diego employees interested in fencing have been invited to a special informal meeting slated for 7:30 p.m. Friday (May 13) at the CRA clubhouse, Gillespie Field.

Contact Guy Gurski, ext. 857 at Astro, or CY-6-4213, evenings, for information.

CRA Sports & Recreation Convairiety

1,700 Attend Rose Show, 314 Entries on Display

Annual CRA Rose Show, sponsored last month by the Convair SD Garden Club, attracted 314 entries, over 1,700 spectators, and produced nine best-of-show winners.

"Persons were standing in line before the doors opened," E. L. Zimmerman, CRA commissioner, said, "and the procession of spectators continued all afternoon."

Zimmerman said visitors saw a show that will go into the record book as one of the largest both in "quality and quantity of blooms."

Entries in the rose class totaled 263. Thirty-six vied for honors in arrangements, nine in corsages, and there were six entries in the children's division.

Best-of-show winners were Rosalie Swanson, single rose; E. L. Zimmerman, three roses; Mildred G. Clark, polyantha; Esther Barksdale, arrangement; Rose Hart, corsage; Janice Zimmerman, child's entry; G. L. Schiebel Jr., six mixed roses, florabunda.

Ribbons for single blooms went to Mrs. F. White, white bloom; Mrs. E. L. Zimmerman, light yellow; Mrs. Walter McVay, dark yellow; Everett Henderson, orange or orange blend; Walter Low, light pink; C. M. Bley, dark pink; Walter Low, light red; Rose Hart, dark red; Rosalie Swanson, Peace rose; Esther Barksdale, yellow blend and pink blend; C. J. Lewis Jr., red blend.

Three bloom entries won honors for the following: Carl A. Swanson, white; E. L. Zimmerman, light yellow; Walter E. McVay, dark yellow; Mrs. G. L. Schiebel, orange or orange blend; C. J. Lewis Jr., light pink; F. White, dark pink; Jean Henderson, light red; Gloria Jodka, dark red; Mildred Clark, Peace roses; G. L. Schiebel Jr., yellow blend; John Jodka, pink blend; C. J. Lewis Jr., red blend; Lora Lee Young, three mixed roses; G. L. Schiebel Jr., six mixed roses, also three stems florabunda; Mildred G. Clark, three stems polyantha.

In the arrangements division ribbons were won by Norma Gerardy, miniature; Rose Hart, small; Esther Barksdale, medium; Florence Harris, large; Ora Inman, dry under 18 inches; Rose Hart, dry over 18 inches.

For best corsages, ribbons went to Ora Inman, rose corsage; Florence Harris, any cut flower; and Rose Hart, orchid and tropical.

Janice Zimmerman and John Bley won ribbons in children's classes.

Camera Club Plans Photorama Entries In Park on Sunday

CRA Camera Club members and models will play active roles at the Sixth Annual San Diego Photorama scheduled for all day Sunday (May 15) in and around the Balboa Park Conference Bldg.

SD shutterbugs will snap shots of models and other photo subjects as they compete for the best picture awards.

Annual Post-Photorama party will be held by the club May 23 starting at 7:30 p.m. in the Photo Arts Bldg., Balboa Park. Prints and slides taken during the Photorama will be exhibited.

Results of the April 25 second quarterly contest were also announced by the club last week.

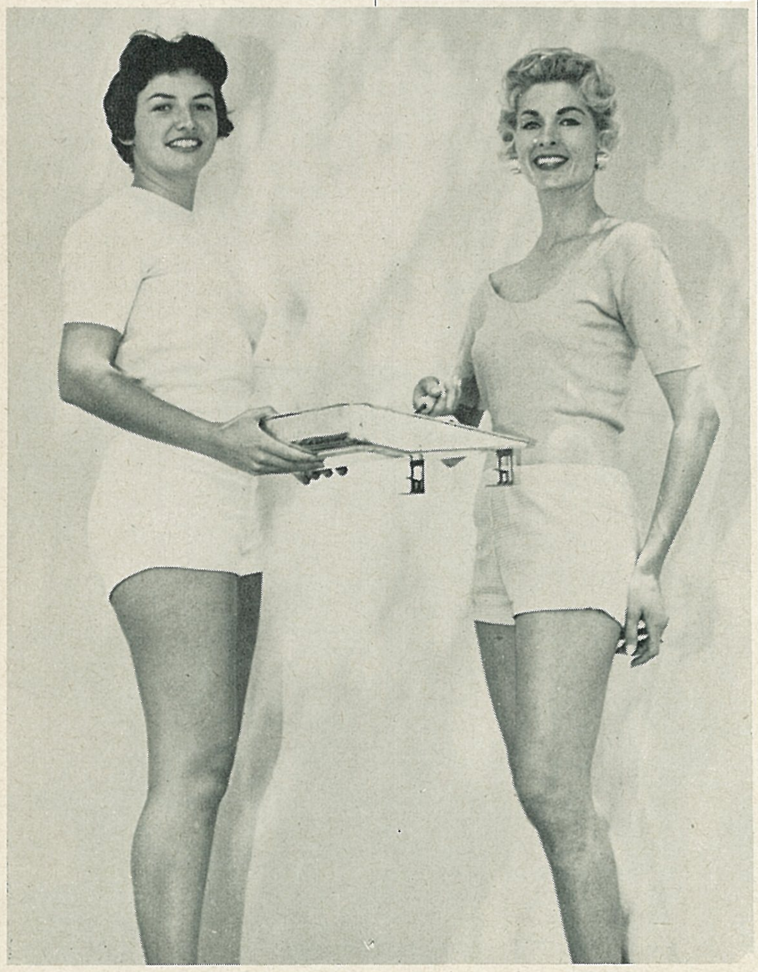
E. F. White (Dept. 61) took two color slide awards and single slide honors went to A. P. Perry (Rose Canyon) and Ron Ainsworth (Dept. 6).

Mrs. Ainsworth and Joyce Currie (Dept. 61) entered the best black and white prints in the contest judged by M. D. Cooper of the Photo-Naturalist, Darkroomers and Solar Camera Clubs.

Dimmitt's 67 Wins Dept. 3 Tournament

Del Dimmitt fired a low of 67 to pace entries in a special Dept. 3 golf tourney played April 30 over the short course at Singing Hills.

Other top scores were posted by Fred Wells, 68; Lee Woll, 71; Cedric Durst, 76; W. Weidenfeller, also 76. Mrs. Wayne Gray led the women with 88, followed by Mrs. Dimmitt with 89.



PAINT UP TIME—Pretty Convair SD Camera Club models, Pat Waldo (on left) and Grace Joyal, are all set to start work on club set for San Diego Photorama. They'll also model at the shutter bug event scheduled for May 15 in and around the Balboa Park Conference Bldg.



CODE CLASS—New CRA Radio Club-sponsored code and theory class is now under way in group's Harbor Drive headquarters. Over 25 Convair students are enrolled in course which covers requirements for novice and general licenses. In top photo (from left) are Virginia Brown (Dept. 1-17), William Hernandez (Dept. 231), James Lack (Dept. 6) and Dorothy Oldfield (Dept. 1-16). Standing is J. B. Baker, CRA commissioner.

Lake Morena Trip Set This Weekend For Trailer Group

Members of Convair SD's Travel Trailer Club have scheduled a jaunt to Lake Morena this weekend (May 13-14-15).

The lake is located south of Highway 80, some 60 miles from San Diego. Camping costs are $1 per trailer per night, including use of sanitation facilities.

Excellent trout fishing is near at hand to the camp site. Cost for adults is $1.50 per day, children under 16 can fish free.

A potluck supper is planned for Saturday night. Highway markers will guide travelers to the camping site.

Additional trip information can be obtained by contacting Hal Perkins, JU-2-3291.

Gleason Point New Ski Club Location

Base of operations for the Convair SD Water Ski Club has been changed from Tierra del Fuego to off Gleason Point because of dredging operations in the bay.

Club members are presently skiing both Saturdays and Sundays in preparation for the summer schedule of tournaments, Tom Mathews, commissioner, reports.

Free lessons are offered beginners. Information can be obtained by contacting Gene Sevigny, club commodore, ext. 1032, Plant 1.

Astronomers Plan Movie at Meeting

"Earth Satellites," a film about launches, orbits and information received from artificial satellites, will be screened by Convair SD's Astronomy Club at a meeting Friday evening (May 20) at 8 in the CRA Clubhouse, Gillespie Field.

Visitors are invited. Additional club information can be obtained by calling ext. 1705, Plant 1.

Radio Club Plans Election Tomorrow

Radio Club members at Convair SD will elect officers at a meeting tomorrow (May 12) at 7:30 p.m. in the club Harbor Drive headquarters.

Tickets are priced at $2.60 for the installation dinner planned for Thursday (May 21) at 7:30 p.m. at the Henry Langhorst Restaurant, La Mesa Airport.

Eagles Third In Pre-Season Softball Meet

Convair SD's softball entry in the La Mesa Amateur Softball Association pre-season tourney landed in third place, winning three, losing two.

Eagles' victories were over El Cajon Baptists, 6-5, and 10-0, and Sutton's Plastering, 3-0.

SD pitcher, Jerry Stryker, turned in a no-hit, no-run game for the latter victory.

Rohr handed the Eagles both their losses, 4-1, and 3-2. Rohr placed second in the tourney, losing a first-place playoff game to the La Mesa Bigshots by one run.

Both the Eagles and a Convair Rose Canyon team are entered in the Southern California Municipal Athletic Federation tourney now in progress.

The Eagles picked up a first-game tournament victory over Naval Electronics Laboratory 14-2.



FIESTA — Some 70 Spanish class students attended party April 30 hosted by instructor Jim Hardison (Dept. 15). At bottom are mariache singers from Tijuana who entertained. In top photo young Sharon Hardison searches for pinata.

Delta Divers New Champion In Southwest

Convair Delta Divers May 1 placed first at the annual Pacific Southwest Spearfishing Championships at Cardiff, defeating teams from 17 other San Diego County clubs.

Members of the winning team were Harry Ruscigno, Bob Casebolt, and Derek Walton, all of Dept. 6.

The SD victory snapped a string of five straight wins registered by the San Diego Addicts Club. It also qualifies the SD team automatically for the National Underwater Spearfishing Championships to be held at Laguna Beach June 26.

The Delta Divers placed first in the meet with 46 lbs.; followed by the Addicts, 26 lbs.; Addicts, 18 lbs.; and Astro Divers, 15 lbs. These teams qualify for the Pacific Coast Championships scheduled at Carmel June 12.

CRA Calendar

(Convair SD Recreation Association has some 40 activities in operation. For information in SD sports, call CRA headquarters, ext. 1245, Plant 1.)

★ ★ ★

BADMINTON — Open play for families Tuesday evenings at 7:30 in Balboa Park Federal Bldg.

BALLROOM DANCING—New classes now open at McGrath Dance Studio, 1106 Broadway.

BOWLING—Entries now open for summer league activity. Contact Jim Hayman, ext. 1155, Plant 1; or Mike Brooks, ext. 583, Plant 2.

BRIDGE CLUB—Next session Tuesday (May 17) at 7:30 p.m. in Hotel Barcelona, 4th and Juniper.

CAMERA CLUB — San Diego Photorama Sunday (May 15) in and around Conference Bldg., in Balboa Park. Post-Photorama party Monday (May 23), 7:30 p.m., Photo Arts Bldg., Balboa Park.

FENCING—Demonstration and film at meeting Friday (May 13), 7:30 p.m., CRA Clubhouse, Gillespie Field.

FISHING CLUB—Meeting May 18 has been cancelled.

GOLF—Entries open until Friday (June 3) for Golf Club Championships to be played June 12, 19, 25-26 at Flying Hills and Torrey Pines. Golf Club meeting this Friday (May 13), 7:30 p.m., Balboa Park Conference Bldg.

ICE SKATING—Convair night every Thursday; discount rates between 6:30 and 8 p.m. at Iceland, 6055 Lake Murray Blvd.

JUDO — Workouts and instruction Thursday, 7 p.m., CRA Clubhouse, Pacific Hwy.

MOVIES—Reduced-price movies each Tuesday night at Academy Theater, 3721 University Ave. Admission: adults, 25¢; children, 15¢.

PISTOL CLUB — Next shoot Sunday (May 22), 9 a.m., San Diego Police Pistol Range, Federal Blvd. and Home Ave.

RADIO CLUB — Officer election at meeting tomorrow (May 12), 7:30 p.m., Harbor Drive headquarters.

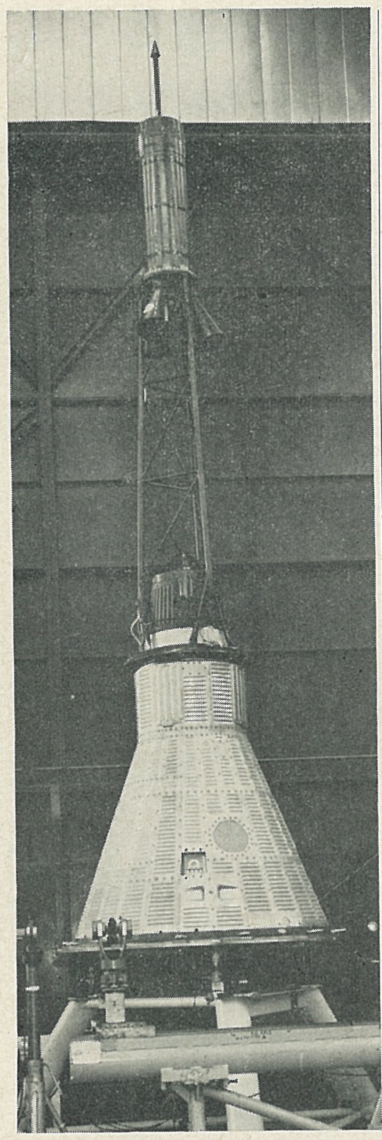
ROLLER SKATING — Next skate night Monday (May 16), Skateland, Front and G Sts., 6:30 to 9:30 p.m. Free tickets at employee services, both plants, and from departmental representatives.

SKI CLUB — Meeting tonight (May 11), 8 p.m., CRA Clubhouse, Gillespie Field. Dinner dance Saturday (May 21), 6:30 p.m., CRA Clubhouse, Gillespie Field. Trip, by bus, to High Sierras over Memorial Day weekend.

SPORTS CAR CLUB — Trip to Disneyland May 21-22, cars leave Bldg. 19 parking lot at 8 a.m. Saturday.

TRAILER CLUB — Trip to Lake Morena this weekend (May 13-14-15). Call Hal Perkins, JU-2-3291.

WATER SKI CLUB—Sessions Saturdays and Sundays off Gleason Point. Free lessons available.



FIRST PHOTO — Project Mercury space capsule photo was released for first time. McDonnell Aircraft delivered it to NASA. Pylon atop capsule is escape system. Atlas missile will send such a capsule into space.

Project Mercury Atlas Readied For Shipment To Cape Canaveral Soon

A continent apart, important steps are being taken in Project Mercury, the effort to boost a manned capsule into space.

At San Diego this week Astronautics was readying an Atlas missile for shipment to Cape Canaveral, assigned to the project.

At Wallops Island, Va., McDonnell Aircraft, builder of the space capsule, delivered the first capsule instrumented for escape system tests.

Accepting the latter was the National Aeronautics and Space Administration, Project Mercury sponsor. This government agency's Space Task Group will assist McDonnell in exhaustive tests of the system.

The capsule delivered is cone-shaped with a base diameter of about six feet. It is nine feet high. Atop the capsule is a tower arrangement with a high impulse rocket as its peak. The rocket could carry the capsule away from the Atlas should malfunction occur. It is a safety device which would be jettisoned if not needed.

Astronautics is modifying Series D Atlas missiles for Project Mercury. Modifications consist of alterations in guidance and autopilot telemetry and electrical systems. Astro has also designed an abort sensing system, which would detect malfunctions during booster flight and trigger the automatic escape mechanism.

This mechanism could also be triggered by ground control stations, including the test conductor, or by the pilot within the capsule. The pilot would throw a special switch.

(Astronauts, one of whom will make the first manned space flight, call this the "chicken switch.")

Early this year capsule tests at the Virginia site were made with a small (six-pound) monkey aboard. "Miss SAM" (for School of Aviation Medicine, her "home") rode the capsule atop a "Little Joe" rocket to an altitude of 36,000 feet where the escape system was activated to bring her safely to earth.

She was examined and proclaimed "in good condition."

Complex 14, the "oldest" of the Atlas launch sites at the Atlantic Missile Range, will be the launch site for Project Mercury. Curt Johnston, Astronautics test conductor, will be in charge. Assisting will be representatives of NASA, McDonnell and the Air Force.

Normal Atlas countdown procedures will be used, although the count will be lengthened 30 minutes to allow for checkout of capsule systems and instrumentation.

The first ballistic missile test shot involving Atlas and the Mercury capsule took place in September of 1959. It was designated "Big Joe." The capsule was recovered and NASA reported the test yielded a wealth of re-entry and recovery data.

In the next series of tests Atlas will lift the capsule above the atmosphere and accelerate it to about 17,000 miles an hour on a downward slanting trajectory that duplicates re-entry conditions. The capsule model separates, orients itself, and parachutes into the recovery area.

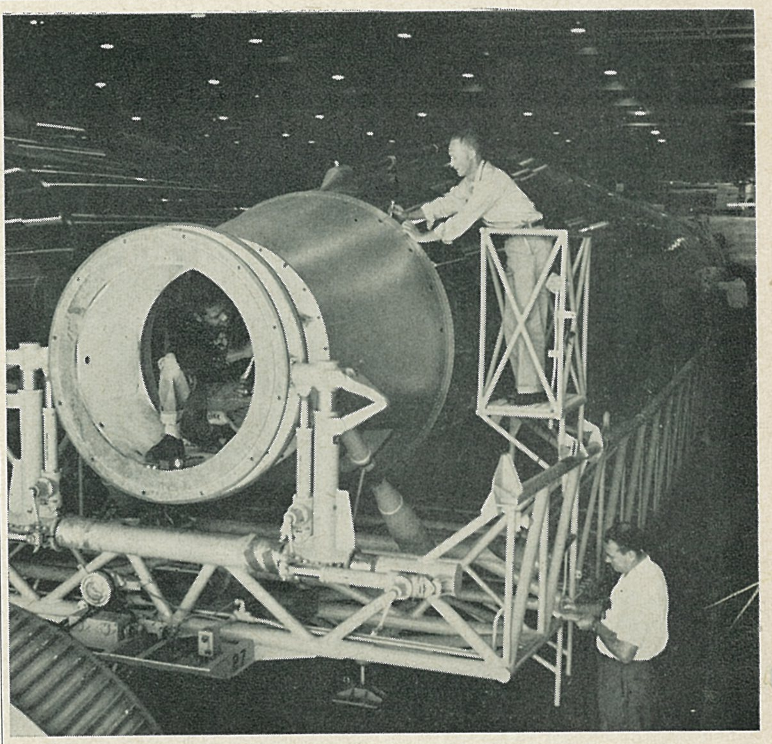
Next come ballistic shots in which unmanned capsules will be placed in orbit by Atlas to evaluate the capsule system and the world-wide tracking and communication network now being installed by NASA as well as the total recovery system.

However, before the first manned space flights, the seven astronauts will send one or more of their number on shorter flights involving the capsule and a Redstone missile booster. These will be sub-orbit flights.

The first Atlas-boosted manned Mercury shoot, now scheduled by NASA for the "calendar year 1961," will send the capsule and its occupant more than 100 miles above the earth where it will make three 90-minute orbits before recovery operations are started.

All participants in the Mercury program, Convair Astronautics and its thousands of suppliers, McDonnell Aircraft and its vendors, plus many others, have all joined in a Project Mercury Pilot Safety Program.

At Astronautics and its suppliers this means normally rigid Atlas quality control measures are being tightened even more.



FOR MERCURY—This Atlas missile is being readied for shipment to Cape Canaveral where it will be assigned to Project Mercury. Special space capsule will be affixed to nose.

Labor Contract Negotiations Continue in Calif. and Texas

Labor contract negotiations, which have been under way for some weeks at Fort Worth, San Diego and Santa Monica, Calif., are continuing.

At Fort Worth Convair is negotiating with the International Association of Machinists, the Federated Independent Texas Unions, Office Employee International Union, and the International Brotherhood of Electrical Workers. I.A.M. contract expiration date is May 15.

San Diego, Astronautics and Pomona operating divisions are negotiating jointly with the I.A.M. with sessions in Santa Monica. The present I.A.M. contract with Astro and SD has been extended through June 5. Pomona contract terminates June 6.

Meanwhile, at San Diego, Astronautics and San Diego operating division teams have been negotiating with the Engineers and Architects Association. The present E.A.A. contract expires June 2 for SD and Astro. Contract negotiations for Pomona, where the E.A.A. contract expires June 20, began April 20.

Hustler Makes High and Low Flybys For Aviation Writers

A B-58 made low and high-level dashes over Edwards AFB May 6, as some 150 aviation writers on the ground received a running radio account of the action.

The demonstrations at Edwards climaxed a week-long conference of the Aviation Writers Association held in Los Angeles.

Flying supersonic, the B-58 first made a high-altitude pass, demonstrating operational bombardier-navigation techniques used on the Hustler. During the flybys, a running commentary of the action was radioed from the Hustler to a ground station, then aired over a loudspeaker to the writers.

After the high-altitude pass, the Hustler made one of its famed on-the-deck operations at low altitude.

A three-man crew from Carswell AFB put the Hustler through its paces.

Following the demonstrations, the B-58 was put on static display for writers and photographers.

Models Help Determine Best Spot For Antenna

Test engineers at Convair Fort Worth are using scale model copper B-58s, rolling along "railroad tracks," to figure positions for the Hustler's many antennas, ranging from low frequency communications and navigational aids to high frequency radar antennas.

Hanging from the ceiling of the antenna range shelter atop the test lab are the not-in-use models, resembling contemporary mobiles. But when the lab receives a test request—for instance, "Tell us where's the best place to locate the glide slope antenna?"—the models swing into action.

First an antenna is mounted on the model in what engineers consider the most logical place. Then the entire model is put atop a motor-driven pole and begins its trip out the tracks to the roof, away from the shelter.

With a given antenna and a given frequency to be used, the distance of the model from the shelter—where the power source is located—must be exact. Engineers have about 100 feet of track to work with.

The power source transmits signals which are relayed to a console inside the shelter by a detector, attached to the antenna and connected to the plotting system by cable.

Then the search begins, and the engineers begin plotting full scale antenna radiation patterns.

If plotting shows the first position selected for the antenna produces the desired results, that's where the antenna will go on the airplane. If not, engineers will remove the antenna, quickpatch the hole, and try it somewhere else.

Incidentally, the easy soldering characteristics of copper is one reason the models are made of that material. In addition, it's relatively inexpensive.

Bill Raymond, Dept. 6-7, says the most frequently used copper model is the one-tenth scale size, although the lab has several smaller ones. They're less desirable in most cases, however, because, as the model size is scaled down, frequency of signals must be scaled up accordingly. Too small a model would require an impossible-to-produce frequency.

First 600 Engine Arrives at SD

First engine for the Convair 600 jet transport arrived at the San Diego plant early last week.

Flown in from the General Electric Co. plant at Cincinnati, Ohio, the CJ-805-21 aft-fan jet engine, slated to power Convair's newest jet airliner, is now in the engine buildup area in Bldg. 4, Plant 1. It will be used in a mockup for the tubing and electrical wiring to be installed at the SD plant, said F. E. Grossher, superintendent of 600 pod and pylon assembly.

From the mockup, production parts for the engine pod will be made and assembled under direction of C. W. Clark, foreman of pod and pylon major buildup.

Second engine, due here late this week, is slated to go to the engine test stand at the SD seaplane ramp for checkout.

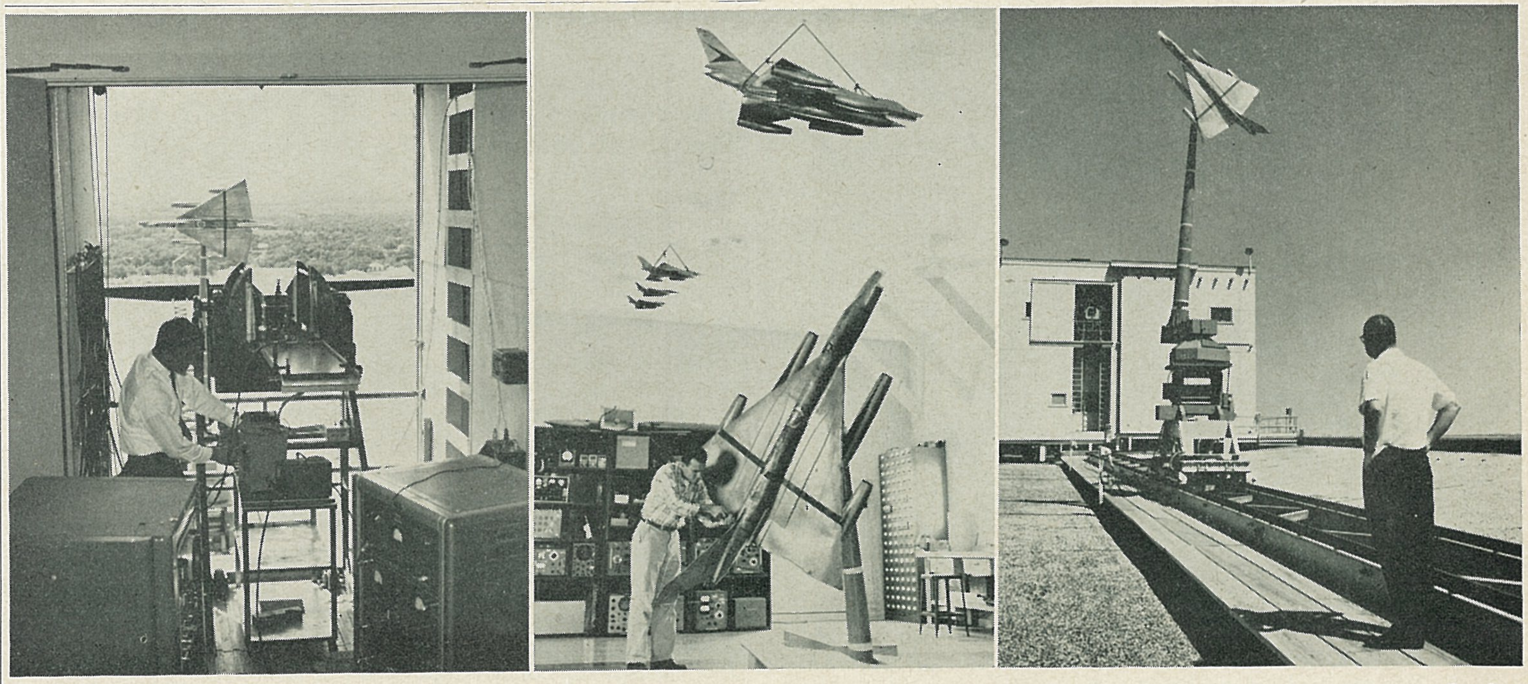
The other two engines, completing the ship set for plane No. 1, are scheduled for delivery by June 1, said Grossher. The pod and pylon units, complete with GE engines, will be installed on the aircraft in final assembly.

NMA Conference Set For Campus of SDU

Annual conference of the San Diego Area Council of the National Management Association will be held at the University of San Diego May 7 from 9:30 a.m. to 4 p.m.

Featured speaker, both Saturday morning and afternoon, will be Max B. Skousen, president of Skousen Financial Management Service, Inc.

Tickets are priced at $4 for Management Club members and $2 for members' wives. Reservation chairman is Virgil Jaenicki, Narmco, San Diego.



ANTENNA CHECK—Best spots on B-58 for antenna locations are determined with copper models at Fort Worth. Center, L. B. Herring, Dept. 36, tightens antenna before it's rolled outside. At left, B. F. Pinksa, Dept. 6-7, adjusts power source and aims signals. At right, Bill Raymond, also Dept. 6-7, okays position on tracks.

C-V CONVAIR

Published every other Wednesday.

GD GENERAL DYNAMICS

Convair Division of General Dynamics Corporation.

Convairiety

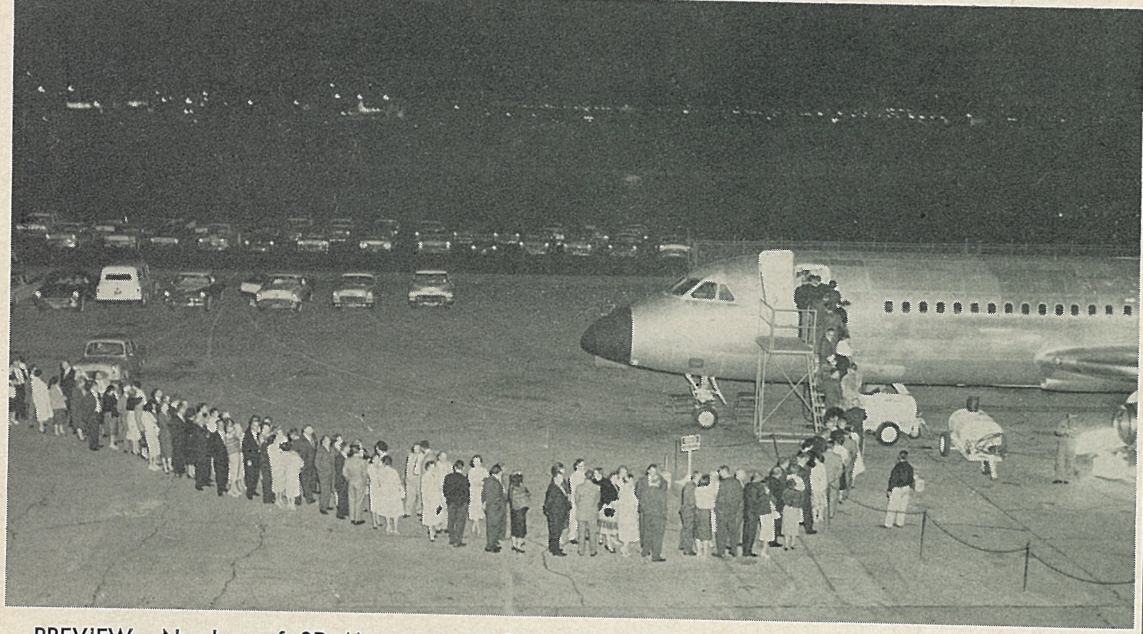
San Diego EDITION

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SAN DIEGO, POMONA, ANTELOPE VALLEY, VANDENBERG AFB, CALIF. — AFMTC, CAPE CANAVERAL, FLA., FORT WORTH, TEX.



PREVIEW—Number of SD Management Club members and wives previewed TWA 880 at night showing last week and found interior new and exciting. Visit climaxed Balboa Park meeting.

SD Will Relocate 1,000 as Mfg. of Jet 600 Expands

Almost 1,000 persons at Convair SD Plant 1 are being relocated in current moves to make room for expansion of manufacturing processes for Convair 600 jet transports.

Moves are shifting groups from the east side of Bldg. 3 ground floor and mezzanine into Bldg. 4. All of the east bay of Bldg. 3 will be turned over by July to metal bond fabrication and assembly (Dept. 119); plastics section of Dept. 129; and interior trim and fabrics, also Dept. 129. Metal bond processes, which include honeycomb panel work, will occupy the length of the building between Cols. C and Q; plastics will extend throughout the area between Cols. D and Q; while interior trim and fabrics will expand into all of the mezzanine.

Over 82,000 square feet in Bldg. 4 are earmarked for operations being moved out of Bldg. 3, said SD industrial engineers.

Already located in Bldg. 4 is Dept. 136, fuselage belt frames, which went into the 18,550 sq. ft. of space on the ground floor between Cols. A and D, 15-23.

Convair 880 parts formerly stored there have been moved to Rose Canyon.

Electric bench, comprising 115 people of Dept. 116, are now making jet transport electric harnesses at the north end of Bldg. 4 west mezzanine, north of engineering flight test location. Dept. 6 isometrics group will occupy a small section of the same area.

Recent moves have seen wood pattern and form blocks section of Dept. 401 relocating machinery and 45 workmen from Bldg. 4 to join similar functions of tooling in the south end of Bldg. 7. Jigs and fixtures will remain in the north part of Bldg. 4 west bay area, as will field operations and inspection offices.

(The east side of Bldg. 4 is already permanently occupied by electronics manufacturing and 600 pod and pylon assembly. Astronautics missile checkout and

(Continued on Page 2)



NIGHT OIL—Flight operations at Convair SD go on around clock to prepare Convair 880 airliners for delivery to customers.

Management Club Elects Larry Lawson

(Photo on Page 2.)

New president of the Convair SD Management Club is L. G. "Larry" Lawson (Dept. 188-1) who received a comfortable majority of votes cast in the recent club election.

J. L. Terrien, chairman of the nominating committee, announced all new officers at the May club meeting. They will be installed at the June 15 gathering.

The club's new president served as a member of the Board of Control, 1958-59, and during the past year has headed the Mug of the Month committee. Lawson is also a member and past president of the Convair Toastmasters, past president of the La Jolla Camera Club and a member of the American Society for Quality Control.

R. W. Dill (Dept. 5-0), club member since 1952 and past financial secretary and treasurer, was elected first vice president. Second vice president is E. R. Fink (Dept. 25), only candidate elected who was nominated from the floor.

Other new officers are R. M. Montgomery (Dept. 21-0), recording secretary; C. L. Ambler (Dept. 3-3), treasurer; and E. V. Laird (Dept. 8-1), financial secretary.

Chosen for one-year terms on the Board of Control were G. R. Bailey (Dept. 197-4), L. E. Roth (Dept. 230-0), C. H. Hahn (Dept. 8-4), and M. C. Tombler (Dept. 6-21). Serving a two-year term on the Board will be D. R. Bryson (Dept. 102-0).

Main speaker at the "education night" May meeting was B. F. Coggan, Convair vice president and SD operating division manager.

Winner of the monthly Mac-Save-it award was Jack W. Cox (Dept. 170), who last year received the President's Award.

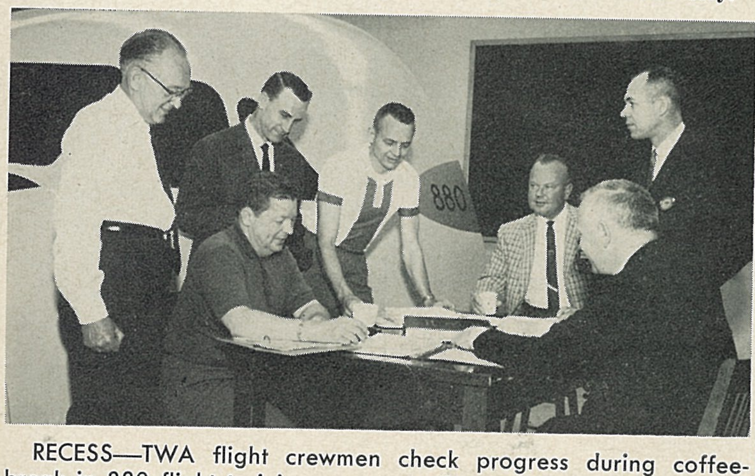
TWA Flight Crews Training at SD Getting Ready For 880 Service

Trans World Airlines flight crews are at Convair San Diego this month becoming familiar with Convair 880 jet transports before the new airliners join TWA'S passenger fleet.

During this month 24 TWA pilots and flight engineers are taking a flight training course set up under direction of P. H. Selby, production flight training supervisor. L. W. Hughes is coordinator of transport flight training for Convair SD while J. A. Frier, TWA director of flight training, is here to supervise TWA participation.

Each man is spending eight hours in the cockpit procedures trainer in Bldg. 4 while at least four pilots and four flight engineers will receive actual flight training in the 880 by the first of June, said J. Fisher, TWA superintendent of flight engineering training.

TWA "students" are from the airline's headquarters at Kansas City, Mo., from Los Angeles, San Francisco, and New York City.



RECESS—TWA flight crewmen check progress during coffee-break in 880 flight training program. From left are L. W. Hughes, SD training coordinator; L. J. Rice, instructor (seated); Capt. Orville Olson; J. Mueller; Capt. Lee Danielson; G. Hibbeler; and J. Fisher, TWA superintendent flight engineering training.

Size of Pay Checks To Be Changed at SD

Convair San Diego people will notice a slight difference in appearance of their pay checks received after June 10.

Checks going to SD hourly and flat-salaried persons and General Office hourly will be an inch longer in size, said J. L. Terrien, SD payroll supervisor.

Information on stubs will be rearranged to allow space showing balance on purchase of tools by weekly deduction. Magnetic ink printing will be added at bottom of new-style checks for identification of bank and branch.

F-106 Pursues Runaway Missile, Shoots it Down

An F-106 jet interceptor streaked into the sky near Alamogordo, N.M., to bring down a runaway Matador missile during Armed Forces Day observance May 14 at Holloman AFB.

Maj. J. D. Fowler, AF pilot of the Convair-built jet, tracked the ground-to-ground tactical missile to 130 miles north of Holloman, bringing it down with a direct hit with a Falcon rocket.

This was the first time that the GAR-3 Super Falcon had had a chance to prove itself in an emergency firing.

Scheduled as one of the events in the Armed Forces Day show, the Matador malfunctioned after launching from White Sands Missile Range. The F-106 was sent into action after attempts to self-destruct the drone failed.

Darting into the air with the missile 45 miles ahead, the F-106 locked on target at 32,000 feet near the small town of Belen, N.M., and brought down the Matador with a direct hit in the tail section.

Thousands saw a display of "aerospace power for peace" during Armed Forces Day events at the Holloman site. Convair F-102s and F-106s played a part in "live" missions and demonstrations during the day.

Four F-102s executed a diamond formation at 1,000 feet with one peeling off, sweeping back into line to fire a three-missile Falcon salvo.

Convair arranged a special exhibit of F-106 jet interceptors with their armament, Falcon air-to-air missiles.



DIRECT HIT—Maj. J. D. Fowler, AF pilot, with F-106 jet interceptor that scored hit to bring down runaway Matador missile launched from Holloman AFB, N.M., range.



PACKING—Name plates of some 10,000 U. S. Savings Bonds buyers at Convair SD are readied for shipping by C. G. Lee and Esther Hamilton (both Dept. 91). Plates were sent last month to Federal Reserve Bank in Los Angeles where bonds will be issued and mailed, tasks formerly handled by SD accounting.

Convair SD to Relocate 1,000 in Mfg. Expansion

(Continued from Page 1) acceptance retains the enclosed area at the extreme north end of the east side.)

Slated to move last weekend was Dept. 180 mockup which went into area vacated by tooling. Lifesize mockups of the 880 and 600 were swung into the central section of Bldg. 4 west bay. Later, proof planning will go into an area just south of Hollywood and Vine intersection.

Hat rack and lavatories function of Dept. 129 will move into Bldg. 3 from Bldg. 4 by the middle of next month. By the end of June Dept. 117, tubing and cable, will shift from Bldg. 3 mezz to Bldg. 4, north of Hollywood and Vine, between Cols. 23 and 31.

Final move on the schedule, first part of July, will shift General Electric storage crib from extreme north end of Bldg. 3 to Bldg. 4. Area vacated will make room for a new process control laboratory to be installed for 600 work.

Deadline Tomorrow For NMA Golf Meet

Entry deadline is tomorrow (May 26) for Convair SD Management Club members who plan to play in the National Management Association Golf Tournament June 4-5 at Apple Valley Country Club.

Members should form their own foursomes and submit entry plus fee of $5 to Russ Davis, mail zone 218-0. Established handicaps are required. For additional information contact Davis, ext. 335, Plant 2.

Friday at 3:30 pm Deadline For Entries In CRA Padres Baseball Ticket Drawing

Baseball fans at Convair SD have until this Friday (May 27) at 3:30 p.m. to submit entries for another San Diego Padres ticket drawing sponsored by CRA.

Tickets will be good for Westgate Park games between May 31 and June 16 with Sacramento, Salt Lake City, Seattle, Spokane, Portland and Vancouver. Each drawing winner will receive two tickets.

One entry per person is allowed. To enter, SD baseball fans should submit name, clock number, shift, department number, location and telephone extension.

Boxes are located in employee services, Plants 1 and 2; at Rose Canyon, in the office of Virginia Cannon, ext. 2125; Fordham St., office of Bessie Cooper, ext. 100; and at the ramp, in the office of Ralph Sachs, Bldg. 37, ext. 425.



BIG STEP UP—Four more at Convair SD recently completed four-year electronics apprenticeship program. R. E. Honer, manager of SD electronics, congratulates (from left): Jack L. Heming, Orley J. Neller, John D. Shackleford, and Tom S. Harris.

★ Convairiety ★

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SD Editorial Offices, Building 32, Plant 1, ext. 1071. Staff: Grayce Fath, Helen Pemberton, Fred Bettinger.

Astronautics Editorial Offices, Bldg. 8, Astro site, ext. 3322. Staff: Bryan Weickersheimmer, news editor; Alyce Martin. News contacts: AFMTC, Evelyn Poole, ext. 4011; Warren AFB, Bill Jack, ext. 7-2254. Offutt AFB, David Reichenbacher, ext. 264, Cherry Gocken, ext. 348.

FW Editorial Offices, Col. 73C, ext. 2961. Mailing address: Convairiety, Convair, Fort Worth, Texas. Telephone PErshing 8-7311. Staff: Dave Lewis, news editor; Susan Bagby, Mary Beck.

Pomona Editorial Offices, Room 106-D, Bldg. 1, ext. 6226/5279, mail zone 3-3. Staff: James Combs Jr., news editor; Dorothy Keller.

Antelope Valley Editorial Office, Room 103, Bldg. 301 B, Palmdale, ext. 337. Staff: Richard L. Millett.

McGuire Heads AIIE at SD

R. W. McGuire of Convair SD industrial engineering will head the San Diego chapter, American Institute of Industrial Engineers, for the coming year, following recent election.

Other Convair men serving in AIIE posts will be D. B. Acker, SD manager of industrial engineering, and J. K. Davant, Astro manager of industrial engineering, on the board of governors. T. R. McColloch of Astro was named to the board of directors.

Convair SD industrial engineers chosen to head committees are: Harry Lund, chapter development; W. L. Timm, building fund; Frank Wintersorff, membership; and T. Tyler, community service. C. C. Harper Jr. of Astro will chairman the opportunities committee.

One of the major projects of the SD group is the free management consulting service for community groups begun last year under McGuire's direction and to be continued under the chairmanship of Tyler. Such United Fund organizations as Salvation Army, SD County Heart Association, Community Chest, SD Unified School District, Urban group, and Family Services Association have expressed themselves as appreciative of AIIE help given them in improvement of office procedures.

Best SD Suggestions Earn Special Awards Of Photos, Models

Eight from Convair SD during the past two months have received color photograph sets of Convair planes and missiles, in addition to cash awards, for best Employee Suggestions submitted.

Weekly winners during March were M. F. Brawner (Dept. 3), W. M. Eddings (Dept. 180), A. Duplat (Dept. 129) and D. M. Wilkins (Dept. 91). Duplat also won an F-106 desk set for his ES which was judged the best submitted during the month.

During April the sets went to H. E. Gaugh Jr. (Dept. 148), Frank Kelly (Dept. 115), J. R. Page (Dept. 223), Harold May (Dept. 101), and W. L. Murphy (Dept. 97). Murphy's ES also won the desk set for April.

Barry Coggan Wins Top Science Award

Barry Coggan, 18, son of B. F. Coggan, Convair SD manager, has been named top mathematics and science winner in the state of California under the annual Bank of America Achievement Awards program.

A senior at La Jolla Jr.-Sr. High School, Barry went to the May 20 finals at Los Angeles as San Diego division winner, competing with five other division semi-finalists from throughout the state. He received $1,000 cash award at an awards dinner at LA Statler Hotel that evening.

This is the first time in 13 years of the statewide program that first place has gone to a San Diego area contestant.

Jet Familiarization Course Given to 130

More than 130 Convair SD persons at Rose Canyon have taken a special 880 and 600 familiarization course—voluntarily after working hours.

SD educational services instructors conducted the classes which met four times for one-hour sessions in the Rose Canyon cafeteria.

SD WILL DONATE BLOOD TOMORROW

First-shift volunteers at Convair San Diego Plant 1 will be donating blood tomorrow (May 26). Bloodmobile will be located in Bldg. 32 between 10 a.m. and 2 p.m., said Ken Wulfemeyer of SD employee services.



CLUB LEADERS—L. G. "Larry" Lawson (sitting, second from left) is new Convair SD Management Club president. In first row are R. M. Montgomery, recording secretary; Lawson; E. R. Fink, second vice president; C. L. Ambler, treasurer. Standing (from left): L. E. Roth, D. R. Bryson, C. H. Hahn, G. R. Bailey, all Board of Control members; E. V. Laird, financial secretary; M. C. Tombler, Board of Control. Not available for photo was R. W. Dill, first vice president.

Convair SD TV Show To Be Shown May 30

Television audiences in the San Diego area next week will be seeing an episode of "Manhunt" filmed inside the Convair SD plant.

"The Day the Roof Fell In," will be shown over Channel 4 next Monday (May 30) at 7 p.m. and over Channel 8 the following evening (May 31), also at 7.

Principals in the weekly crime-busting series, Victor Jory, Patrick McVay, and Chuck Henderson, chased clues throughout Convair SD Plant 1 last March.

90 at SD Attend Value Control

Second value control program at Convair San Diego, a familiarization course for supervision in several different functions, ended May 10.

Approximately 90 supervisors were chosen for orientation on what value control can do and how to do it. They came from engineering, electronics, industrial engineering, contracts, customer service, material, and tooling operations.

Instructing two-hour lectures in engineering auditorium over four days were S. R. Carpenter, SD value engineer; D. S. Clark of educational services; W. D. Lavis of operations; and R. W. Hardy of material.

Carpenter explained application of value cotnrol principles to engineering; Lavis spoke on value control's significance in operations. Clark explained value control techniques and human relation factors, while Hardy described importance of value control during "learning curve" of new projects and part vendors can play in a value control program.

First value control seminar at SD last month resulted in recommendations which may save the company at least $500,000. Another workshop seminar is scheduled for the near future.

Dept. 3 Wins First Round of Volleyball

Volleyballers from Dept. 3 early this month defeated Electrical 15-8 and 15-10 to win the first round of shop competition posting a clean slate of five wins and no losses.

Identical 3-2 records threw Electrical, Industrial Engineering and Structures into a three-way tie for second place. They were followed in the standings by Physics and Propulsion.

In the second round now under way Electronics has replaced Physics on the schedule. Winner of the second round will meet Dept. 3 for the championship. The playoff is slated for June 29.

League games are played Wednesday evenings in Muni Gym, Balboa Park.

SD Rifleman On State Team At Ohio Meet

G. R. Cherry (SD Dept. 21) has been selected as a member of the California State Rifle Team which will compete in August at the national rifle matches at Camp Perry, Ohio.

Cherry earned a spot on the squad by placing fourth in the .30 caliber competition during the recent California State Rifle Championships at Fort Ord, Calif.

Cherry won gold medals and placed first in the following events: 200-yd. sitting rapid fire, 200 and 300-yd. rapid fire aggregate, 200-yd. off-hand and 600-yd. slow fire aggregate, as well as Grand Aggregate, Governor's Match.

He also placed second (and won silver medal) in 300-yd. prone rapid fire and third (bronze medal) in 600-yd. prone slow fire. More than 200 competed for rifle honors at the state matches.

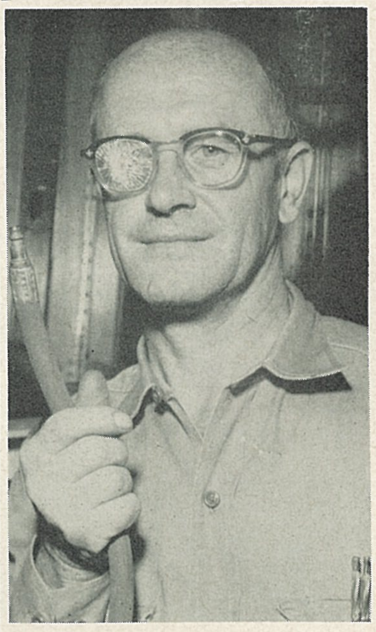
Donoghue Transfers; Wood Takes Up Duties

L. A. Wood assumed responsibilities of general purchasing agent for Convair SD effective May 9, announced T. J. Sullivan, SD assistant manager-contracts, customer service, and material.

Wood, chief of subcontracting since last summer, succeeds R. L. Donoghue who has transferred to Astronautics as general purchasing agent.

Joining Convair SD in 1943, Wood has been connected with material, subcontracts, and purchasing since that time.

Reporting to him will be V. M. Burns, R. F. Fildes, M. Formanek, H. L. Henrie, and M. F. Moseley, purchasing agents.



CLOSE CALL—Safety glasses saved right eye of J. J. Krause (SD-Dept. 146) when coupling unsnapped on pressure hose, whipping it through air.



FIRST—Capt. Stanley M. Umstead Jr. of the 539th FIS at McGuire AFB, N.J., is congratulated by Lt. Col. Norman W. Campion, 539th commander, after completing upgrading to Expert in the F-106A. He is first AF pilot to receive Expert rating in Convair F-106A.

IND. MANAGEMENT COURSE CONCLUDED BY SD, ASTRO MEN

Five men from Convair San Diego and two from Astronautics are the first from Convair to receive Certificates in Industrial Management from California Western University.

This year's presentation marks the second year of California Western's participation in the program which gives industrial and business people an opportunity to continue their education on a college level. Convair cooperates in a similar program at San Diego State College.

The certificates are given for completion of 30 hours of college credit courses at a high standard of performance. Credits may be applied toward a full degree.

Receiving certificates at conclusion of the current semester are Roy Bailey, Glen Bates, Sam Catalano of SD industrial engineering; D. J. Campbell (Dept. 180), and N. R. Keough (Dept. 31), all of Convair SD. From Astro were G. D. Higgins of Dept. 182-0, and J. J. Molter (Dept. 561-2).

Combat Crews Begin Carswell Training

First class of B-58 combat crews began training May 17 at Carswell AFB—home of the 43rd Bomb Wing.

Consisting of 30 academic days of ground training, the course will cover such items as aircraft systems, normal and emergency procedures, flight engineering, and tactical employment of the B-58 weapons system.

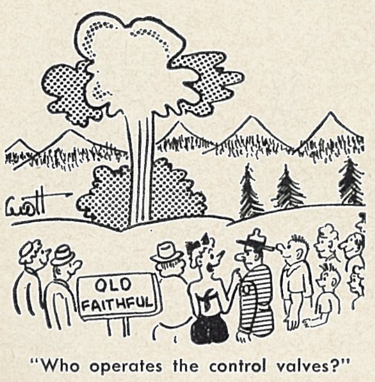
Following the ground school training, students will enter a program of flying training, including theory and practice problems in B-58 flight simulators.

Convair to Observe Monday as Holiday

This weekend will be a long one for Convair people.

All plants will be closed next Monday (May 30) in observance of Memorial Day, with the exception of necessary maintenance and security personnel.

Work will resume as usual on Tuesday (May 31).



"Who operates the control valves?"

More Midwest Squadrons Get Convair F-106s

Convair-built F-106s are being phased into two Midwestern AF squadrons this month.

First complement of F-106s has been received at Kincheloe AFB, Mich., where they will be flown by the 438th Fighter-Interceptor Squadron of the 507th Fighter Group. The new jet interceptors are replacing F-102s at the Michigan base.

Convair SD men stationed at Kincheloe in support of the F-106s are G. P. McElvain and James Orrell.

Also slated to receive F-106s by the end of this month is the 11th FIS of the 343rd Fighter Group at Duluth AFB, Minn. W. F. Eddy and C. H. Marier, Convair SD field services representatives, will be at the base by June 1.

George AFB, Calif., is the next base to get the new-type interceptors, probably by July of this year.

* * *

F-106s were introduced to the press and public at Selfridge AFB, Mich., near Detroit, early this month. Eddie Rickenbacker, World War I ace, took part in ceremonies which saw his old outfit, the 94th FIS, demonstrating their newest aircraft.

Dean Marks, Convair SD field service rep, presented Rickenbacker with a model of an F-106. M. J. Quilter, prime representative from Convair in support of the F-106s, and R. R. Bass, SD field service rep, participated in arrangements.

The 94's complement of F-106s was transferred to Selfridge from Loring AFB, Me.

TCU Will Graduate Convair FW Scholar

Commencement at Texas Christian University will mark graduation of a 1957 winner of a Convair Sons scholarship, Robert E. "Bob" Huddleston, son of L. E. Huddleston, Dept. 25 at Convair FW.

Graduating in three years because he spent both summers and winters attending classes, Huddleston now plans to attend the University of Arizona. There he will be under a Woodrow Wilson Fellowship for graduate work in mathematics. The fellowship is awarded to high ranking students who plan a career in college teaching.

Among Huddleston's TCU honors was his election this year to "Who's Who in American Universities and Colleges."

Britishers Discuss Supersonic Controls

H. W. Hinckley, assistant chief engineer, was Convair FW's host recently to representatives of Great Britain who were here to discuss technicalities of aircraft structure and controls in supersonic airplanes.

Representing Britain's equivalent of our own NASA, the Royal Aircraft Establishment, England, were W. G. J. Pinsker and T. C. Zaykowski. Also here were R. R. Duddy of British Joint Services Division and Ian Albert M. Hall of English Electric Co., a British aircraft company.

Four Join National Scholastic Society

Four Convair FW employees were recently initiated into Alpha Sigma Lambda national scholastic honorary society at Texas Christian University.

They are M. E. Caraway, Dept. 7-4; Art Gilligan, Dept. 4-7; J. B. Rankin, Dept. 24-1; and Gene L. Jackson, Dept. 3-3.

Requirements for membership are at least 30 semester hours credit in Evening College, with a grade average of 3.5. Iota Chapter at TCU was organized in 1955.



CHOW TIME—Bob Carter, left, design engineer, and F. R. Turner, flight test engineer, spread 21 boxes of cereal on stand for unique test to detect foreign-matter intake.

Breakfast Food 'Fed' Into Hustler Engine

The B-58's powerful J-79-5 engine has a voracious appetite for air—but little hankering for breakfast food.

Which is simply another way of saying that the Hustler's engines probably aren't prone to pick up excessive foreign objects on ramps and runways.

In a unique test to determine how much foreign matter the B-58 engine does pick up, Convair FW test engineers spread 21 boxes—or 378 average helpings—of cereal about six feet below the engine on the flight test engine stand. The engine was then run from slow acceleration to maximum afterburner speed.

At high speeds, engineers discovered, the engine did suck up some, roughly about a small serving.

No damage was recorded. The breakfast food served to represent small, usually harmless items such as leaves, pieces of paper, cigarette butts, and the like.

"The fact that the engine did pick up some indicates we'll have to try the same test on slightly heavier, more damaging articles to see their effect on the engine," L. E. Lightbown, design group engineer, said.

Because foreign objects have caused some damage on other jet engines, the Air Force decided Convair FW should take a look at possible harmful effects on B-58 engines.

Bob Carter, flight test engineer in charge, said the inlet air in a jet causes a tornado-like funnel which is capable of picking up foreign objects. The air of the engine then pulls these articles into the inlet.

Carter added that a new test will call for a platter of talcum powder to be placed under a running engine. Cameras will record "which way the winds blow," tipping off engineers on precisely how the funnels are formed.

"An air-blast system for nullifying these funnels is now used on most commercial jetliners," Lightbown explained.

In future tests, foreign objects made of barium sulfate, talc and clay—made in the Convair chemistry laboratory—will be used.

Assisting in the tests are F. R. Turner, design engineer, and Charles Jackson, flight test engineer.

Accountants Elect Three Convair Men

Three Convair men have been elected directors of the San Diego chapter, National Association of Accountants, for the year 1960-61.

W. W. Hass, assistant to the controller at Convair SD; J. L. Ragusa, Astro supervisor of material accounting; and J. R. Tucker, Astro chief of industrial accounting, were chosen at the May 11 meeting, last of the current year. The new board will take over with resumption of club meetings in the fall.

Of the 320 members in the local chapter, over 50 are Convair SD and Astro men.

SD's Busch to Edit Model RR Newspaper

Karl P. Busch (SD Dept. 15-6) has been named editor of "The Bulletin," official monthly newspaper of the National Model Railroad Association, Inc.

Busch is a long-time member of the SD CRA Model Railroad Club and is a past president of the Pacific Coast Region of the National Model Railroad Association. He will assume editor's duties with the October issue.

Ham Radio Links Pomona and FW

As a result of chance, amateur radio contact was made recently between Convair Pomona CRA Commissioner Frank Merritt and Max Schelper of the Convair Fort Worth CRA Ham Club.

The probability of members of the two Convair clubs making contact with each other was not too unusual, but they both considered it a coincidence to find that they were each the CRA commissioner of the respective club. Also taking part in the first contact was Pomona's Ray George (Dept. 31).

The two groups have since established a schedule for a weekly contact, and also hope to set up a communications link between other General Dynamics divisions, Merritt said. The net will then be used to allow traveling employees to contact home no matter where they might be.

Color Movie Made by Delta Stars Jet 880

Convair's jet transport, the 880, is eulogized in a film, "Introduction to a Champion," being released by Delta Air Lines as the new airliner goes into passenger service.

The 12-minute color movie, all shot at Convair San Diego and in flights over Southern California, points up special features of the 880 designed especially for passenger comfort. It was produced by Delta for community showings in cities to be served by Delta 880s.

A copy of the film has been obtained for use at Convair San Diego. Any group wishing to show the film during lunch periods or off-work times may contact Jane Dulong, SD public relations, at ext. 1641, Plant 1.

Star of the show is the "Delta Queen," first plane delivered to Delta Air Lines. "Passengers" were, for the most part, Convair men and women and members of their families, chosen for specified types. Delta stewardesses played their own parts. Jane Dulong of SD public relations office assisted Cate and McGlone, Hollywood film producers, in casting and filming arrangements.

Crew during the flight scenes was A. P. Wilson, captain; W. B. Harwell, co-pilot; L. Knudsen, flight engineer; V. V. Thomason, radio operator; K. J. Rogers; and U. S. Johnson.

During the last two weeks Convair San Diego people have viewed the film in the engineering and training auditoriums.

TRAINING COURSES RUN SIMULTANEOUSLY ON 880 AND 600 JETS

Training courses on both Convair 880s and 600s have been running simultaneously this month in Convair San Diego customer service training classrooms.

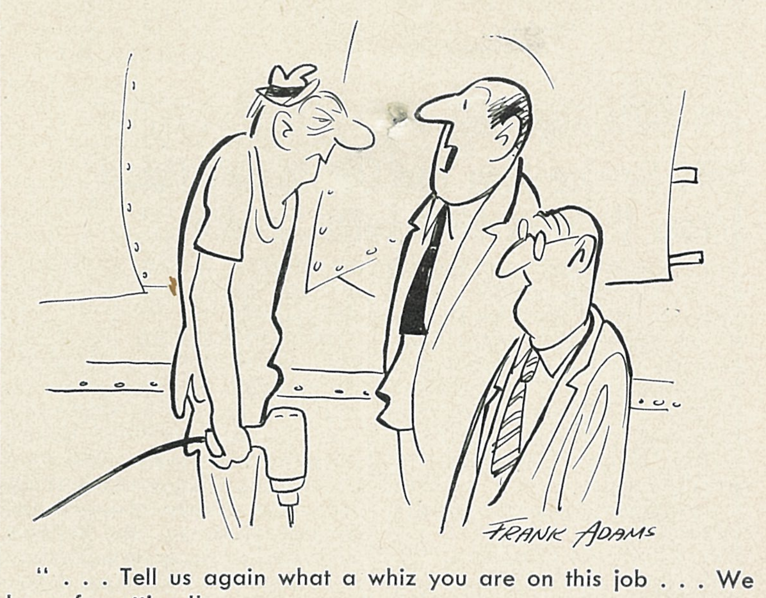
Concluded last week was an eight-day maintenance planners program for American Airlines personnel from Tulsa, Okla., maintenance base of the airline. This is the second planners course presented on the 600 for American.

Attending the course was I. Lack, vice president of Swissair from Zurich, Switzerland. He is remaining at the SD plant throughout this week for an inspection of manufacturing methods and plant procedures.

Two courses, electrical and aircraft systems, started May 9 for 35 Northeast Airlines men from throughout the system. Headquarters of the airline is in Boston, Mass.

The two current courses, which run throughout this month, will be followed by an electronics and a power plant program.

Japanese Air Lines people are expected at Convair SD the first part of June for a planners course on the 880-M version.



" . . . Tell us again what a whiz you are on this job . . . We keep forgetting."



WHERE ARE THEY?—Consairway men stationed in South Pacific during World War II are sought for first reunion June 4-5. Picture was taken in 1943 at Amberley Field, Ipswich, Australia, turn-around point for LB-30s operated by Consolidated Aircraft for Air Force.

Serve With Wartime 'Consairway'? There's Reunion in Planning Stage

A call is out to all "Consairway" men, who served Consolidated Aircraft Corp. in faraway places during World War II, to gather for their first reunion over the weekend of June 4-5.

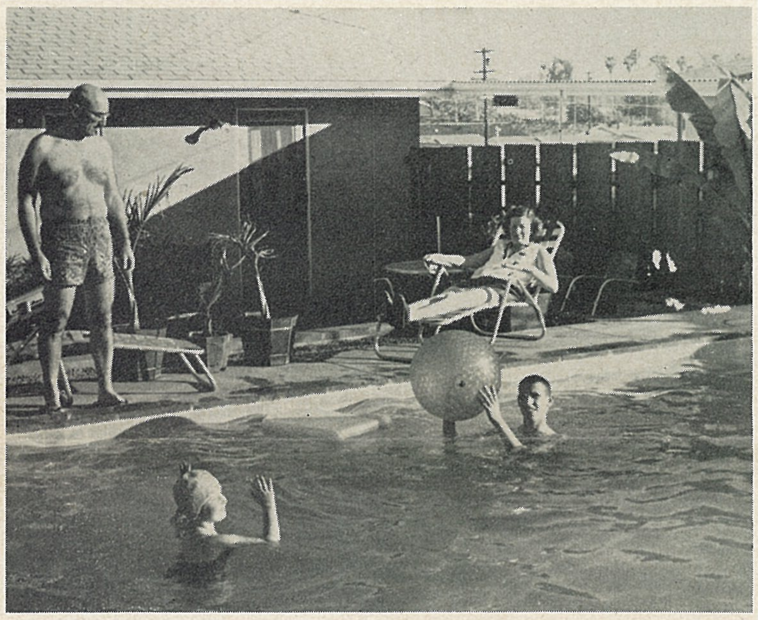
Place chosen is the Mile Hi Outpost at Valyermo, Calif., in the San Gabriel Mountains reached via Highway 138. A full weekend of recalling experiences of 17 years ago will be in store for as many of the 175 members of the clan as can be located, said W. R. Kemper, manufacturing control foreman at Convair San Diego.

During the war years, from 1942 until the end of World War II, Consolidated crews were based in Honolulu, Canton Island, Fiji Island, New Caledonia, and Australia to service the converted LB-30s flown for the Air Force. The airline service operated by Consolidated transported AF personnel, mail, medical supplies from the United States to Australia, and later, to Japan as the theater of operations moved northward. Wounded were flown home on return trips.

At least two Convair San Diego men were based in Australia during those years—Kemper as material and equipment coordinator at the Ipswich base and Frank Korczykowski, now of Dept. 280, Plant 2.

Kemper is certain that there are others of Consairway operations still with Convair operating divisions at Astro, Pomona, Fort Worth, as well as San Diego. He urges them all to make themselves known and contact him at ext. 569, Plant 2, SD, for information and directions to the get-together.

C. D. Wirt of Astro Dept. 575-2, at MSTS off-site base, is contacting Consairway men in the Palmdale and Edwards AFB area.



FAMILY FUN—Astro's Charles Hitney family built this pool for only $300, using salvage items, original ideas and lot of back-breaking work. Pool features unique solar heating system. Hitney himself shot this picture by putting camera on delayed exposure.

Salvage Material, Do it Yourself, Result in Family Swimming Pool

An Astronautics family parlayed diligent shopping in the Astro salvage yard, backbreaking shovel work and a pack of original ideas into an unusual low-cost family swimming pool.

Charles Hitney of Dept. 547-3 teamed with his wife, two sons and young daughter to do the job. They took it on only after completing most of the work involved in building a new family home in Escondido.

Price tags on the type pool the Hitneys wanted ranged from $2,000 to $3,000. Too much, they thought, to spend at this time.

Then Hitney drew up some plans and got an idea: why not build it himself? He scouted around for materials and found a bonanza in the Astro salvage yard. He visited the yard five times, picking up surplus stainless steel, mesh and concrete reinforcing material and galvanized pipe fittings.

The excavation was the hardest task. It required six months of shovel and wheelbarrow work.

Hitney placed the stainless steel into position as a filter system and as reinforcing material around drain and pipe inlets. The other material was fitted into place. Then came a 14-hour stint with a motorized concrete mixer. Underwater lights had been included prior to pouring concrete. Ceramic tile was added later.

For heating Hitney designed a series of pipes atop his car port. Water was drawn from the pool into the pipes and heated by the sun. Solar heating with only the cost of power for the motor! The water now stays at a warm 78 degrees, heating during the daylight hours.

Total cost in materials for the 15x28-foot pool was $300!

Field Service Men Fan Out to Key Points Across U. S. as 880s Enter Service

Convair SD men are fanning out to all parts of the United States to be on hand as Convair 880 jet transports sweep into airports on regular passenger runs.

At Atlanta, Ga., headquarters for Delta Air Lines, are Bob Fitzgerald, Court Szeiss, Frank Laffoon, Harry Morgan, SD field service representatives assisting in initial operations of 880 service.

Walt Belliston is based at Idlewild airport at New York; Glen Arner is at New Orleans; and Harry Addis is now at Houston and will go on to Dallas later this month.

Other Convair SD representatives will be assigned to Chicago and Memphis next month by the time 880s are put on that route.

At Kansas City, Mo., making arrangements for first 880 operations with Trans World Airlines, are Henry Morgan and Edward Buckman. R. K. Hall, field service transport supervisor, will be at the TWA base during the first few weeks.

SMU Graduate

Scholarship Winner Goes To Job at FW

Johnie Herbert Jr., winner of the first Convair Sons Scholarship in 1955, completed his mechanical engineering degree at Southern Methodist University this week and came to work at Convair FW.

This marks the beginning of another cycle in a long train of Convair-Herbert association.

Johnie Jr., son of engineering publications supervisor Johnie Herbert, has spent all his co-op time with Convair FW. During that time he gained two years' service with Convair—and a wife.

He met his wife, Glenda, Dept. 6-5 illustrator, while working at Convair during co-op time. Incidentally, Glenda works in Johnie Sr.'s group.

Meanwhile, more Convair recognition came to the Herbert family when Glenda was named "Miss Thrifty," the Scotch lass of Employee Suggestion note.



FAMILY AFFAIR—Johnie Herbert Jr., left, begins work after leaving SMU. Wife, Glenda, hands him badge she'll relinquish soon when she leaves to raise family. Father, Johnie Herbert of Dept. 6-5, looks on.

A Trip Abroad

Convair Son Selected to Spend Summer With German Family

A Convair San Diego son will be spending several weeks this summer as a member of a family in Germany, adjusting to its household customs, living, eating, sleeping, (and attempting to use the language) as one of them.

Carl Cheney, 16, son of Harold Cheney, SD flight test engineer, has been chosen by the American Field Service to make the trip abroad through its Americans Abroad program.

Carl, a junior at Grossmont High School, will leave Montreal, Canada, June 10 for Germany where he will live for six weeks with the Karl Lauven family, civil service employee, in Aachen, Germany.

An honor student at Grossmont High, Carl was selected from six finalists in a field of at least 40 applicants for the summer experience in a foreign country. Choice was made on a basis of scholarship, activities and personality, with faculty, student, and civic committees screening the applicants before final selection was made by New York officials of the American Field Service.

"Carl is an even-tempered boy with lots of interests," said his father, a 23-year-man at Convair SD, "and we are sure that he will fit in well with his German friends."

Language will be a problem, but Carl has had Spanish and Russian in school and now is boning up on German in preparation for the big occasion. On the ten-day voyage, the students will be given a concentrated language course and orientation on manners and customs of the countries where they will visit.

A letter from the Lauvens assures Carl that they are looking forward to his arrival and, with their two sons at home, are planning excursions for his entertainment. He will arrive there just in time for a hostelry trip with the 18-year-old Lauven son.

The American Field Service program, which sponsors an exchange of students between the United States and foreign countries, is sending 1,000 American boys and girls to other countries this summer. Over 1,500 students from 47 countries are in the United States under the same exchange program. This is the first year that Grossmont High School has participated.

Expenses are met by the student's family, school scholarship fund, and the American Field Service. The families in other countries receive no payment whatsoever for opening their homes to American teen-agers.

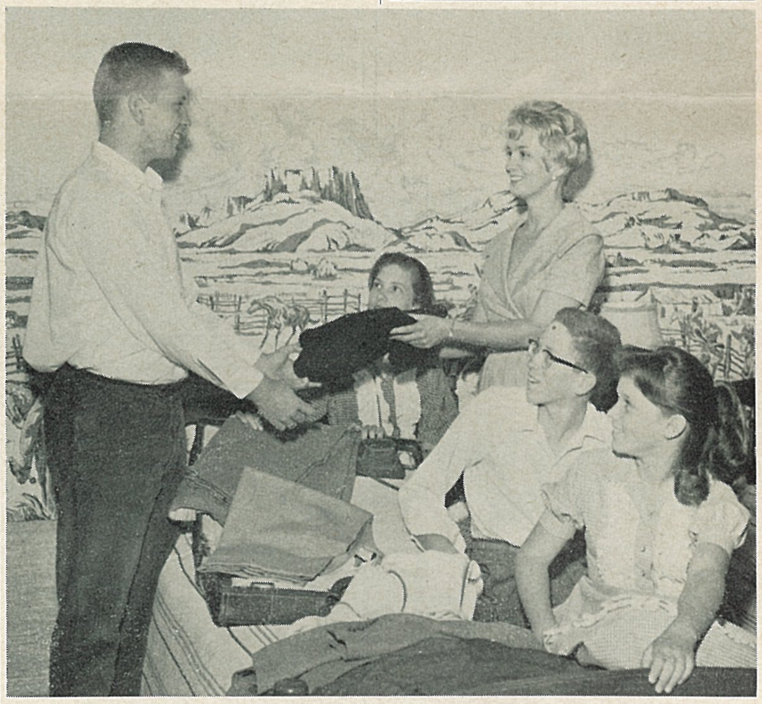
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Astronautics Son Will Go to Denmark

An Astronautics son, David Willson, has been selected by the American Field Service program to spend six weeks this summer with a Danish family in Svedborg, Denmark.

Willson, 16, is the son of J. D. Willson of Dept. 212-2. He is an 11th grade student at University high school, Los Angeles.

Students for this program are selected on the basis of citizenship and scholarship.



GETTING READY—Carl Cheney, son of Harold Cheney of Convair SD, packs for coming trip to Germany with help of his mother and brother and sisters, Ginger, Bryan, and Linda.

Team of 45 Will Spend Year Testing New Pods

A team of 45 Convair FW people will accompany Hustler No. 8 to Kirtland AFB in June to conduct extensive pod tests.

Team Captain R. P. Andrews, assistant project engineer, said the Convair contingent will remain at Kirtland for "about a year." During this time, No. 8 will conduct pod drop tests at White Sands Missile Range in New Mexico and Tonopah Test Range in Nevada.

"Our purpose is to test separation and ballistic characteristics," Andrews said.

Ten cameras mounted on the Hustler's outboard engine nacelles and fuselage will grind away during pod drops to record details of the operation.

"Shake down flight" for No. 8 —the far-roaming B-58 which only last year completed exhaustive tests of the Hustler fire control system at Eglin AFB in Florida—took place here in mid-May. "This was No. 8's first flight since returning from Florida in January," Andrews said.

B-58 crew for the Albuquerque trip will be Jack Baldridge, pilot; Jim Lucus, second station operator; and C. T. Jones, third station operator and deputy team captain.

Jess King, Dept. 64, will be crew chief on the airplane.

The Convair crew will use Convair test facilities at Kirtland. W. T. Abbott is Convair's test base manager at the Albuquerque base.

Members of Depts. 75, 64, 48, 29, 25, 21, 19, 17, 12 and 6 will comprise the team.

Jim Graham, assistant project engineer in charge of Convair's overall pod program, will monitor operations from Convair FW headquarters.

Assisting in the tests will be the Air Force Special Weapons Center personnel at Kirtland.

NEWS FROM OTHER DYNAMICS DIVISIONS

General Dynamics Corporation, created in April, 1952, as successor to Electric Boat Company, is composed of seven divisions and a Canadian subsidiary, Canadair Limited, of Montreal, airframe builders. The divisions are:

Convair, head offices at San Diego, Calif., aircraft, missiles, and space systems.

Electric Boat of Groton, Conn., submarines.

Stromberg-Carlson, of Rochester, N. Y., telecommunications, electronic equipment.

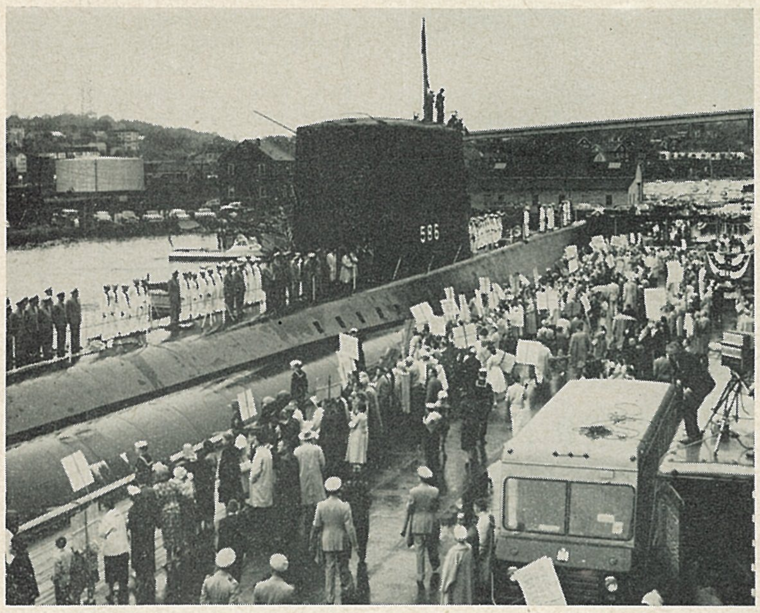
Liquid Carbonic of Chicago, Ill., carbon dioxide producer, industrial and medical gases.

General Atomic of San Diego, Calif., nuclear research, development, production.

Electro Dynamic of Bayonne, N. J., electric motors, generators.

Material Service Division, Chicago, Ill., building materials, concrete products and coal.

* * *



TRIUMPH—Families of crew of atomic submarine Triton line State Pier at New London, Conn., as boat returns from around-world cruise, under water entire time. Triton was built by Electric Boat Division of General Dynamics. Trip covered 41,519 miles, took 84 days.

Stromberg-Carlson-SD Develops Underwater 'Eyes' For Frogmen

SAN DIEGO—Economical new sonar equipment, which is powered by standard flashlight batteries, has been jointly designed by Stromberg-Carlson-San Diego and the U. S. Navy Electronics Laboratory for use by frogmen to give them "eyes" under water.



"EYES"—Frogman tests new sonar equipment, powered by standard flashlight batteries.

The diver-held object locator is a lightweight, portable, completely transistorized sonar system used to detect submersed objects.

The 20-pound sphere, slightly larger than a basketball, has an aluminum casing and is a cubic foot in volume. Grips at the side are held by the diver, permitting easy maneuverability and control.

Ear phones provide audio information on objects detected by the searching sonar beam.

The device is particularly valuable to divers and underwater demolition teams operating in dark or murky waters where visibility is zero.

The equipment is powered by standard flashlight batteries. This eliminates the problem of supplying expensive, special-built batteries used in similar existing devices.

Ten prototype units will be delivered by the manufacturer later this year under a contract awarded by the Bureau of Ships.

Security Risks We Can Do Without



INFERENTIAL IRWIN

"Naturally, I can't say much—but the oil crowd won't get rich selling fuel for *this* one."

Background Music Package Offered

CHICAGO—Entrance into the background music business with a complete program package for "on premise" music service was announced by Stromberg-Carlson Division.

The complete background music package consists of long-play tape decks, amplifiers, speakers and an extensive music library. The music library offered is one of the most extensive and flexible available. One-third of the music library is automatically replaced each month.

Hoy Elected Senior VP of Gen. Dynamics

NEW YORK—Patrick H. Hoy, president of the Material Service Division of General Dynamics Corporation, has been elected a senior vice president of General Dynamics.

Hoy will continue as president of Material Service, a position to which he was elected March 30.

Early Birds

Vultee Corp. Antecedents Air Pioneers

(Vultee Aircraft Corp. of Downey, Calif., bought control of Consolidated Aircraft in the fall of 1941. This installment of Convair's history, No. 35, and subsequent chapters trace the early history of Vultee.)

The company that bought control of Consolidated Aircraft in 1941 was a corporate newcomer—only two years old—but Vultee combined the resources of Avco with the manufacturing traditions of two established aircraft firms. The older was Stinson, founded in Michigan in 1925 by Eddie Stinson, called the "dean of American flyers." The younger company dated from 1932 when Jerry Vultee began building a fast new transport at Glendale, Calif.

Edward A. Stinson was long dead, the victim of a 1932 plane crash. When killed, the 38-year-old manufacturer had spent some 15,000 hours in the air as barnstormer, Army instructor, test pilot, commercial flyer and industrialist. Although he had been flying two decades, he owed his start to another Stinson who won fame first. This was his sister, Katherine, who soloed in her early teens, in 1911 or 12, and became a noted exhibition flyer in the pre-war era of Lincoln Beachey and Ruth Law.

(Howard O. Welty, who researched and wrote this history, adds a footnote at this point: The Stinsons generated legends, but few factual chronicles. A survey of the literature produces endless contradictions of time and place. This is no reflection on the Stinsons, a remarkable breed. They were making history, not writing it. Efforts to correspond with survivors and acquaintances in preparing this study were largely fruitless.)

Eddie credited Katherine with teaching him to fly. Sister Marjorie soloed at the Wright School in Dayton in 1914 (her instructor being Howard Rinehart, later chief pilot of the Dayton-Wright Co.) and brother Jack learned, too. By 1916 the family interests centered at San Antonio, where the girls were operating a flying school. During the war, Eddie was stationed at Kelly Field as a lieutenant, serving as final checkout instructor. Between then and 1925 he operated largely out of Detroit as a professional pilot—testing planes, carrying passengers for hire, teaching students, racing across country with news photos.

Stinson set the first of several endurance records in a gruelling flight over Roosevelt Field, L.I., on Dec. 29-30, 1921. He and Lloyd Bertaud took off in a snow storm and circled in their Junkers JL-6 monoplane for 26 hours, 19 minutes, seven seconds, battling zero weather and 50 mph winds. Two years later Eddie made the first non-stop night flight between Chicago and New York, also in a JL-6. This was July 26, 1923. His time for the 750-mile trip was eight hours, 31 minutes.



SPOKANE DERBY—Eddie Stinson, right, pilot, and Fred Koehler, co-pilot, shown at Roosevelt Field, L. I. They were entered in non-stop section of Spokane Derby, to fly from Atlantic coast to Pacific. —Photo by Underwood and Underwood.



GIRL FLYER—This was Katherine Stinson as she looked after Chicago-New York mail flight, June 3, 1918.

In 1925 Stinson took rough designs for a new plane to two acquaintances on the Detroit Board of Commerce, Harvey J. Campbell, secretary, and William A. Mara, Campbell's assistant. With their support he organized the Stinson Airplane Syndicate. Prominent Detroiters who put money into the venture included Frank W. Blair, head of Guaranty Trust, and William E. Metzger, who was associated with early auto development.

Stinson rented a Congress Street loft for a factory and supervised construction that winter of a four-place cabin bi-plane which he named "Detroiter." It first flew Jan. 25, 1926. Eddie claimed it was the first American plane to incorporate such features as heated and sound-proofed cabin, engine starter and wheel brakes.

CHIEF LIBRARIANS TO MEET IN OHIO

Chief librarians at both Convair San Diego and Astronautics will have roles in the coming annual convention of Special Libraries Association at Cleveland, Ohio, June 5-8.

Keith Blair, SD chief librarian, will give a paper on "Engineering Library Bulletins—the Human Factors Considerations." Lou Canter, Astro chief librarian, will be panel moderator of one of the engineering section meetings of science and technology division.

Over 4,000 are expected to attend the 51st annual meeting of the international organization which includes professional librarians and information experts from industrial, business, civic, governmental libraries throughout the U.S., Canada, and many foreign countries.

Read This And You Are Fully Qualified To Fly 1911 Aircraft, But Don't Spin!

(At one time, operating instructions for airplanes were relatively simple. The following is reported to be an actual excerpt from operating instructions for a 1911 Glenn Curtiss airplane.)

"1. The aeronaut should seat himself in the apparatus, and secure himself firmly to the chair by means of the strap provided. On the attendant crying 'contact' the aeronaut should close the switch which supplies electric current to the motor, thus enabling the attendant to set the same in motion.

"2. Opening the control valve of the motor, the aeronaut should at the same time firmly grasp the vertical stick or control pole which is to be found directly before the chair . . . The power from the motor will cause the device to roll gently forward, and the aeronaut should govern its direction of motion by use of the rudder bars.

"3. When the mechanism is facing into the wind, the aeronaut should open the control valve of the motor to its fullest extent, at the same time pulling the control pole toward his (the aeronaut's) middle anatomy.

"4. When sufficient speed has been attained, the device will leave the ground and assume the position of aeronautical ascent.

"5. Should the aeronaut decide to return to terra firma, he should close the control valve of the motor. This will cause the apparatus to assume what is known as the 'gliding position,' except in the cases of those flying machines which are inherently unstable. These latter will assume the position known as 'involuntary spin' and will return to earth without further action on the part of the aeronaut.

"6. On approaching closely to the chosen field of terrain, the aeronaut should move the control pole gently toward himself, thus causing the mechanism to alight more or less gently on terra firma."



Ham Club Will Meet In Red Cross Bldg.

Tomorrow's (May 26) meeting of the Convair SD Radio Club will be held in conjunction with the San Diego Council of Amateur Radio Clubs at 7:30 p.m. in the American Red Cross Bldg., 3650 5th St., J. B. Baker, commissioner, reports.

Thirty club members were in attendance at the May 12 meeting to elect officers.

New club president is James Lack (Dept. 6), WA6CYD. Other officers are Fred Sickler (Dept. 110), WV6GLK; John Catterall (Dept. 7), K6CZF, secretary; and L. D. Rush (Dept. 180), K6QXN, treasurer. They were installed at a dinner last Saturday.

Martha Woodberry Elected Secretary

Martha Woodberry, CRA commissioner for women's activities at Convair SD, was installed as secretary of Toastmistress Inc. Council #7 at May 7 ceremonies held at Kona Kai restaurant.

Fran Leland, of the AF office at Convair SD, is outgoing president of Council #7 which includes 16 Toastmistress clubs in San Diego and Imperial Counties and the Philippine Islands.

Log Book Entries

Service Emblems

SAN DIEGO

Service emblems due during the period May 16 through May 31.

Thirty-year: Dept. 206, J. J. Panfil.

Twenty-five-year: Dept. 6-53, B. J. Simons.

Twenty-year: Dept. 6-53, J. J. Beckman, K. E. Ward; Dept. 15-4, P. S. Smith; Dept. 31, Joseph Darwell, C. G. Goatley Jr., W. A. Traxler; Dept. 101, Dante Selvaggi; Dept. 135, W. H. Crouch, Vivian G. Reid.

Dept. 137, C. E. Rice; Dept. 145, C. F. Hagata; Dept. 171, L. F. Buczynski; Dept. 204, Francie M. Baxter; Dept. 249, D. E. Knapp Jr.; Dept. 401, R. W. Gluyas, D. V. Neece, F. N. Oden, H. L. Slack, K. M. Vesock.

Fifteen-year: Dept. 6-53, R. W. Streed; Dept. 7, Mildred B. Mundt, Herman Pankau Jr.; Dept. 25-6, A. E. Ward; Dept. 101, Ernest Williams; Dept. 123, A. L. Touchet; Dept. 136, Antonio Chavez Jr.; Dept. 138, G. G. Bagrie, H. J. Wallendorff; Dept. 218, R. L. Sanders; Dept. 280, E. L. Larson; Dept. 400-1, M. F. Gilstrap.

Ten-year: Dept. 6-41, U. S. Johnson; Dept. 15, G. W. Files, C. S. Johnson, D. H. Scott; Dept. 25, B. A. Barrigan, D. L. Dunlap, D. L. Ferrin, W. H. Herth, C. C. Kenney, J. C. Kurtz, V. C. Somers, M. L. Thompson, H. A. Ward.

Dept. 116, Lois L. Burnett, Esther S. Christianson; Dept. 120, H. F. Dempsey; Dept. 138. T. O. Shasteen; Dept. 140, Billie D. Marries; Dept. 146, J. D. Bradley; Dept. 149, Christine Bussey; Dept. 180, J. W. Todd; Dept. 216, Agnes K. Jones; Dept. 230, Marilyn G. Sorcinelli; Dept. 400, R. J. LaMadrid, A. M. Swerdloff; Dept. 401-5, William Johnston.

Retirements

SAN DIEGO

BUSHYAGER—Lee R., Dept. 197-8. Seniority date May 2, 1950, retirement effective May 6, 1960.

CHIOROS—Rose M., Dept. 7-40. Seniority date Jan. 17, 1951, retirement effective April 29, 1960.

FASSETT—Harold S., Dept. 44-2. Seniority date April 2, 1952, retirement effective May 6, 1960.

FIELD—Howard, Dept. 6. Seniority date Jan. 12, 1951, retirement effective May 5, 1960.

HAWLEY—Mark H, Dept. 31. Seniority date March 14, 1941, retirement effective May 7, 1960.

HAYNES—Jesse J., Dept. 115. Seniority date Feb. 6, 1947, retirement effective April 21, 1960.

KIRKMAN—Fred, Dept. 401. Seniority date Sept. 19, 1939, retirement effective May 17, 1960.

REIS—Joaquim M., Dept. 192. Seniority date April 7, 1947, retirement effective May 13, 1960.

SEIBERT—Thad H., Dept. 3-1. Seniority date Jan. 12, 1951, retirement effective May 6, 1960.

SMART—Jesse C., Dept. 14-1. Seniority date May 3, 1951, retirement effective May 7, 1960.

Promotions

SAN DIEGO

Promotions to or within supervision effective May 9.

Dept. 15-5, customer service: To field service asst. supervisor, H. W. Wilson.

Births

SAN DIEGO

GLOUDEMAN—Identical twin daughters; Susan Mary and Sandra Lee, each weighing 3 lbs., 1 oz., born May 7 to Mr. and Mrs. Eugene V. Gloudeman, (Astro Dept. 733). Mother, Jean Gloudeman on leave from SD Dept. 91.

GODREAU—Son, Edmond Christopher, 7 lbs., 9 oz., born April 29 to Mr. and Mrs. Edmond D. Godreau, Dept. 6.

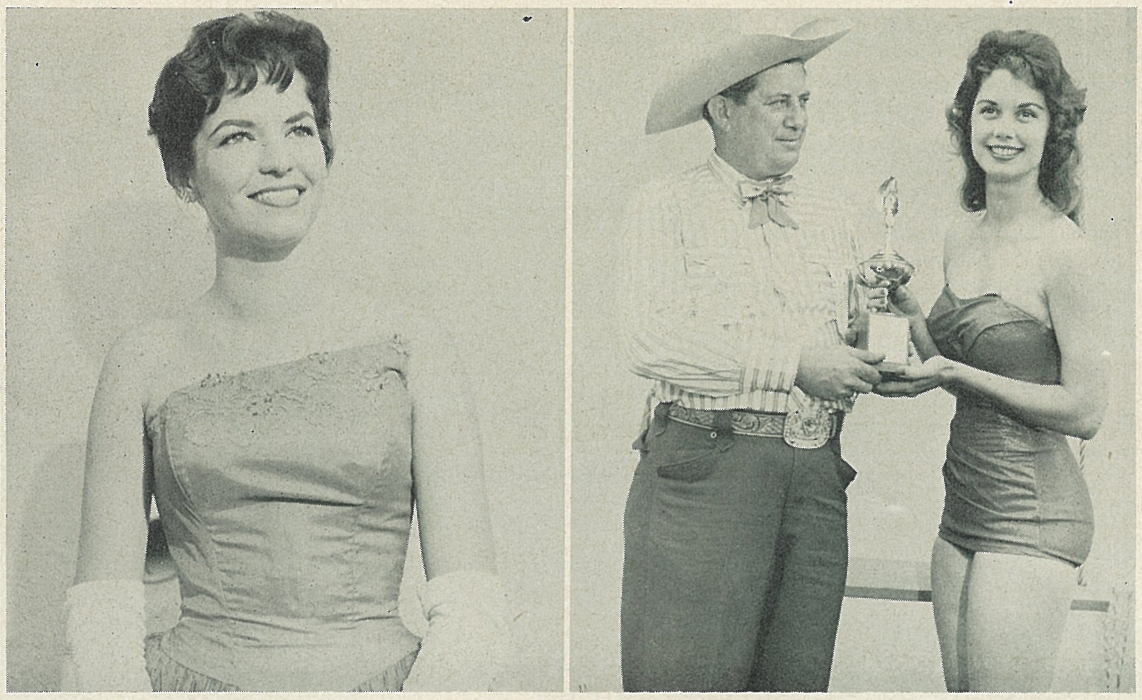
LOUIE—Daughter, Karen Ruth, 7 lbs., 14½ oz., born May 13 to Mr. and Mrs. James Louie, Dept. 119.

Deaths

SAN DIEGO

BROWN—Jacob, Dept. 401. Died May 13. Survived by wife, Irene, and daughter, Dorothy.

GERSDORF—Erich H., Dept. 206. Died May 15. Survived by wife, Erna; daughter, Marjorie; three sisters.



YOUR VOTE PLEASE—Astro's Shirley Kuhn was named "Miss Photorama" recently and Jodi Harbert (left) was runner-up with one vote spelling difference. Presenting trophy is Art Burnham, chairman of Photorama for Southern California Association of Camera Clubs. Both lovelies will be guests at SD Camera Club meeting June 13 at 7:30 p.m. in Photo Arts Bldg.

Gun Range Will Open Wednesday Evenings

Due to longer daytime hours, Convair SD and Astro gun enthusiasts will have an extra day for skeet and trapshooting at the CRA Gun Club Range, Gillespie Field.

Starting June 1 the range will be open Wednesday evenings from 4 p.m. until dark. The Wednesday shooting session is in addition to weekend events held Saturdays starting at 11 a.m. and Sundays starting at 9 a.m.

Two-Day Trap Shoot Planned

Convair Gun Club, composed of both San Diego and Astronautics members, will conduct a two-day registered Amateur Trap Shooting Association event over the coming weekend (May 28-29).

Some 100 participants are expected from throughout Southern California and Arizona. Events will be held at CRA Range, Gillespie Field.

Activities begin at 11 a.m. Saturday with four classes in a 100 target event at 16 yards. The second event is a handicap event for 100 targets.

Sunday will find another 100 targets being thrown for shooters at 16 yards as well as 100 targets for a handicap event. Following will be a 25 paired doubles event.

Trophies will be presented to 15 individuals, including one for high gun. All events will be staged on an individual basis.

Alley Katz Victors In Women's Bowling

WARREN AFB—The Alley Katz emerged as team victors in final standings of the Convair Women's Bowling League here recently.

The Hits and Misses finished second with the Mavericks, Count Downs, Crazy Four's, J's, Needles and Pins and the Ten Pins trailing in that order.

Games of 196 were rolled by Lela Jennings and Sally Rose. Emily Doutt posted high individual series with a 495. The J's had a 597 for high team game and Crazy Four's a 1,586 team series, just one pin better than the J's.

SD-Astro Gun Teams To Enter IRC Shoot

Skeet, trap and rifle teams will represent the Convair SD-Astro Gun Club June 5 at the seventh annual Industrial Recreation Council gun shoot at the CRA Range, Gillespie Field.

Teams will also be entered by Rohr, Ryan, Solar and other members of the IRC. SD-Astro teams have consistently won the majority of top awards in the annual council shoots. Last year they took both skeet and trap brackets.

SD CRA-Sponsored Trip to Europe Now Open to Both SD, Astro Folk

More than 50 Convair SD persons have made deposits for reservations on a SD CRA-sponsored two-week trip to Europe, via SAS Jet Polar Flight Charter, scheduled to leave Los Angeles for Copenhagen Oct. 29.

The trip is now open to both Convair Astro and SD folk who qualify for at least a two-week vacation and have department head approval.

With a 120-passenger load, price for the chartered flight will be $311.54, covering costs from LA to Copenhagen, and return from London to LA on Nov. 12.

If wished, trip payment can be made on an SAS eight per cent financing "fly now—pay later" plan.

Those interested at SD and Astro are urged to obtain brochures available at Convair SD employee services as soon as possible. Trip registrations will close June 15. Phone inquiries should be directed to ext. 1245, Plant 1.

A variety of tours are offered for the two-week European stay.

For those who wish to cover Europe on their own, car-hire price lists are offered. Prices are also quoted for any travelers who wish to buy a car in Europe and ship it back to the West Coast.

A $50 deposit is required for the flight reservation. Those signing for one of the 10-day tours must post an additional $50.

Aeromodelers Plan PAA-LOAD Contest At Hourglass Field

A model airplane contest for PAA-LOAD models will be conducted jointly by Convair SD Aeromodelers Club and Pan American World Airways Sunday (June 5) starting at 8 a.m. at Hourglass Field.

Transistor radios will head the awards furnished by the airline. Only requirements to enter the contest are a modeling license from the Academy of Model Aeronautics and a $1 entry fee.

Convair SD folk and members of their families are invited to attend the contest which will include some exceptionally interesting rocket and cargo events. No admission will be charged for spectators.

Additional information can be obtained by calling Gary Witt, ext. 1507, Plant 1.

Maxfield's 60 Wins SD Club Golf Event

C. W. Maxfield stroked a one-under-par 60 to win low gross at the fifth annual Convair SD Management Club golf tournament May 8 over the short course at Singing Hills.

The shot of the day, however, was turned in by a non-Management Club member, P. C. Chalmer (SD Dept. 98-8), who aced the 135-yd. first hole.

Club members awarded merchandise certificates in the first handicap group were M. C. Val Dez, R. C. Van Sickle, Ed Caldwell, Jim Lawton and Tug Richardson.

In the second group (19 and over) winners were J. Murphy, H. E. Kobrick, W. Holmgren, John Serafin and Carl Uhl. Six won blind handicap prizes. They were R. Trussel, L. R. Blackburn, H. Gallant, Jim Hutchins, Larry Roth and Tom Champlin.

Astro Net Tourney Open to SD Players

Dates for the second annual Spring Open Tennis Tournament at Astronautics have been set and notice given that this year Convair San Diego employees are eligible to play.

Players from both divisions will compete June 18-19 and 25-26 at Morley Field. Further details will be available at a later date, according to Astro's Larry Chambers, commissioner.

Beverly Griffith, ext. 3125 at Astro, will answer questions concerning eligibility.

Keg Awards Banquet Set This Saturday

Annual Convair SD bowling awards banquet will be held this Saturday (May 28) at 7 p.m. in Michael's Lemon Grove Restaurant.

Plant championship tournament winners will receive trophies. Also invited are individual league winners who have not already received awards. For additional information contact Jim Hayman, ext. 1155, Plant 1.

Dance Commissioner Submits Resignation

Resignation of P. E. Liggett, square dancing commissioner at Convair SD since 1957, was announced by J. K. Field, SD employee services chief, at the May meeting of the SD CRA Council.

Liggett, who left to devote more time to other activities, was commended by Field. Maury Scholz, square dancing co-commissioner, will continue to handle duties of the office.

Daughter Awarded $2,000 Scholarship

Myrna Wooters, 17, daughter of Astronautics' S. J. Wooters of Dept. 192-0, this month won a $2,000 scholarship offered by the San Diego Life Insurance Managers Association.

Myrna, a senior at El Cajon High School, won in competition with 251 applicants from throughout San Diego County. She plans to attend either Occidental or San Diego State.

Cash Goes Begging In Fishing Contest

Fishermen at Convair SD are missing out on some cold, hard cash, according to R. W. Menzie, Fishing Club commissioner.

"Response so far has been very light in our summer fishing contest. In fact," he said, "some of the cash awards have not even been made."

SD fishermen can qualify with their fresh and salt water catches for prizes of $15, $10, or $5, awarded by CRA each month.

Fish are judged on a percentage basis. Entry blanks are available at SD employee services, Plants 1 and 2. Registration must be made no later than the fifth of the month following the catch.

20 Campsters Now Finished

Almost 20 "basic hull" campsters have been completed by SD and Astro workers during the past three weeks at the CRA production area, Gillespie Field, R. W. Menzie, SD CRA commissioner, reports.

"The experimental stage of the production program is completed and we expect to maintain a schedule of 10 campsters per week from now on," he added.

At a meeting last month campster builders voted to use precut kits. They are priced at $84.83 and include a $5 fee for use of the CRA facility as well as a $10 assessment for cutting and packaging.

Three and four man teams are working on the campsters weekday evenings until 8:30 p.m. and all day Saturdays and Sundays.

Additional names are now being accepted for the campster building list. At Astro, sign-ups are being taken at ext. 1111. At SD, reservations can be made at ext. 1245, Plant 1.

Amusement Center Camera Club Site For Shoot Tonight

Annual Post-Photorama party of the Convair SD Camera Club has been rescheduled for Monday evening (June 13) at 7:30 p.m. in the Photo Arts Bldg., Balboa Park.

Club models will be among special guests and Photorama slides and prints will be on exhibit, according to Ron Ainsworth, club spokesman.

On tap tonight (May 25) is a special family shoot at Belmont Amusement Center, Mission Beach. Members and guests are asked to meet near the roller coaster at 6:30 p.m.

Park surroundings, Ainsworth said, are excellent for "available light" candid photography. Each photographer attending will be asked to donate $2 which will be given to Convair youngsters accompanying their parents.

"By so doing we'll give the children a chance to enjoy themselves in the park and give the parents an opportunity to break out their cameras," he said.

Discount Available For Baseball Games

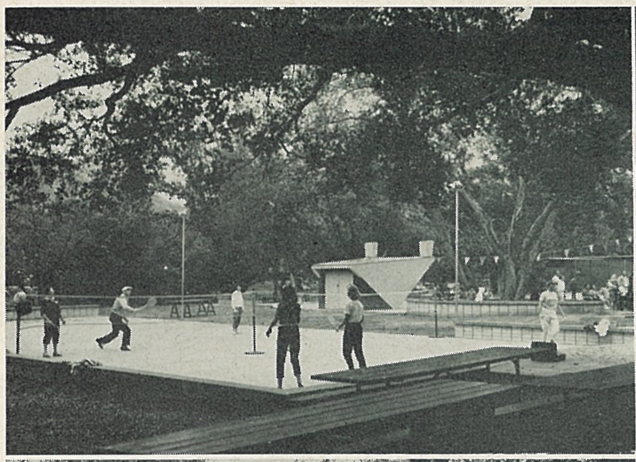
Discount exchange tickets for San Diego Padres home games to be played Wednesday evenings, June 1, 8 and 15, are available at SD employee services, Plants 1 and 2.

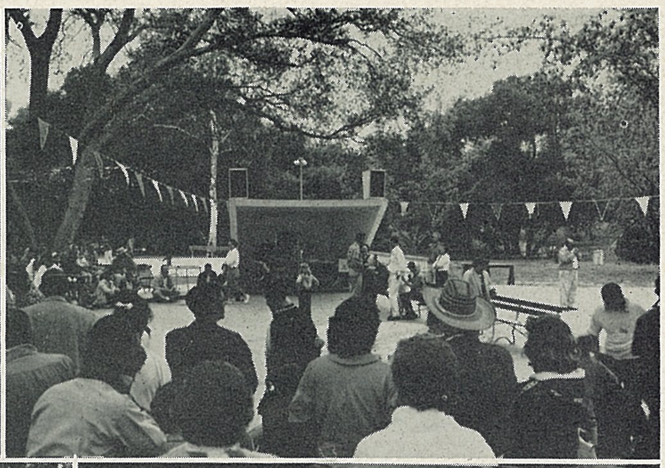
With the exchange tickets SD baseball enthusiasts can obtain a box seat ($2 value) for $1.25 or a general admission seat ($1.25 value) for 50 cents.

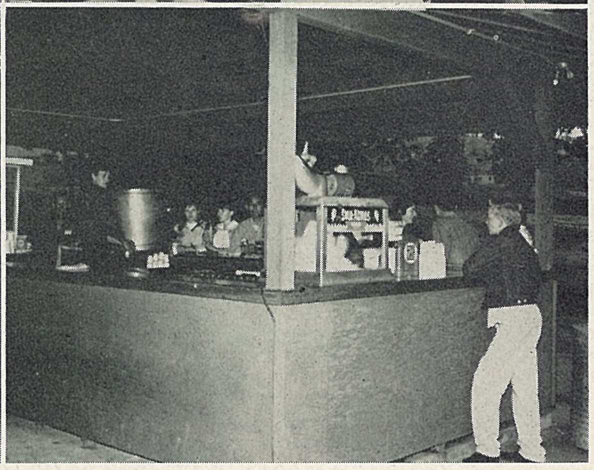
Disneyland Cards Available June 1

New Disneyland membership cards will be available at SD employee services, Plants 1 and 2, starting June 1.

They replace all others previously issued. When presented at Disneyland they entitle bearer to discount on ticket purchases.





PICNIC CAPERS—CRA's Pecan Park is perfect place for nearly all kinds of outdoor activities as photos of industrial engineering picnic May 15 attest. In top center are youngsters after finishing pie eating contest. Raffle was staged on dance floor (upper right). About 500 were in attendance for year's first large departmental picnic in park, despite threatening weather. Pecan Park is open every day of week except Monday. SD folk are invited to use park for family gatherings.

Pistol Teams To Enter IRC

Four four-man teams will represent the Convair SD Pistol Club at the annual Industrial Recreation Council Gun Shoot June 12 at the San Diego Pistol Range.

The event will replace the regular club event, formerly scheduled for the same date, according to Ash Bishop, CRA commissioner.

SD pistol teams have taken top honors at the IRC shoot consistently for the past several years and are defending champions at this year's event which is being hosted by Rohr.

Results of a Convair shoot May 8 saw J. B. Carroll (Dept. 3-1) take both Police Course and Short National honors, edging B. L. Broadway (Dept. 262) in both brackets.

The expert class was led by Ash Bishop (Dept. 401-5) followed by Ralph Picard (Dept. 7). In the sharpshooter class R. E. Kezar (Dept. 6) and A. B. Carlson (Dept. 68) placed first and second. Jim Halfacre (Dept. 180) placed third in the Short National.

CRA *Sports & Recreation* Convairiety

Men on Base, Coin Flip Decides Softball Winner

Convair SD softball teams entered in the San Diego city pre-season tourney are playing such close contests that games are being decided by the flip of a coin and the number of men left on base.

The SD Eagles powered through their first two games, smacking Naval Electronics 14-2 and drubbing Cutri's Chez Paree 12-0.

The next game, with the La Mesa Big Shots, went 10 innings, then was called because of darkness. Winner of game was decided by the number of men left on base. Convair lost. The Eagles had stranded three while the Big Shots had left five on base.

The loss dropped the Eagles from the winner's to the loser's bracket.

Convair SD's Rose Canyon nine entered in the same tourney got into a similar situation while playing Casa Club. Darkness ended the game with the score tied. But both teams had left the same number of men on base. Final outcome was decided by the flip of a coin. Convair won.

Rose Canyon last week was still in contention for honors in the loser's bracket with a record of 3 and 1.

★ ★ ★

Teams entered in Convair SD's shop softball league have been divided into two brackets and play will start next Tuesday (May 31).

Both American and National League teams will play at Alice Birney Elementary School playground.

National League games will be played Tuesday evenings, American league teams will meet Thursdays. Doubleheaders will always be scheduled on both nights, first game starting at 6:45 and the second at 8:30.

CRA Calendar

(Convair Recreation Association has some 40 activities in operation. For information on SD sports, call CRA headquarters, ext. 1245, Plant 1.)

★ ★ ★

AEROMODELERS — Contest for PAA-LOAD models Sunday (June 5), 8 a.m., at Hourglass Field.

BADMINTON—Open play for families Tuesday evenings at 7:30 p.m. in Balboa Park Federal Bldg.

BOWLING — Awards banquet Saturday (May 28), 7 p.m., Michael's Lemon Grove Restaurant. Entries still being taken for summer league bowling. Contact Jim Hayman, ext. 1155, Plant 1; or Mike Brooks, ext. 583, Plant 2.

BRIDGE CLUB — Beginners class starts next Tuesday (May 31), 7:30 p.m., Barcelona Hotel, 4th and Juniper. Playing session for members same night.

CAMERA CLUB — Special shoot tonight (May 25) at Belmont Amusement Center, Mission Beach, starting 6:30 p.m.

GOLF—Entries open until Friday (June 3) for Convair Golf Club championships to be played June 12, 19, 25-26 at Flying Hills and Torrey Pines.

GUN CLUB — Registered ATA shoot this weekend (May 28-29) at CRA Range, Gillespie Field. Saturday shooting starts 11 a.m.

ICE SKATING—Convair night every Thursday; discount rates between 6:30 and 8 p.m. at Iceland, 6055 Lake Murray Blvd.

JUDO—Workouts and instruction every Thursday, 7 p.m., CRA Clubhouse, Pacific Hwy.

MOVIES—Reduced-price movies each Tuesday evening at Academy Theater, 3721 University Ave. Admission: adults, 25¢; children, 15¢.

RADIO CLUB — Meeting tomorrow (May 26) in conjunction with SD Council of Amateur Radio Clubs, 7:30 p.m., American Red Cross Bldg., 3650 5th St.

SKI CLUB — Chartered bus trip to High Sierras over Memorial Day weekend.

SOFTBALL—Shop league play starts Tuesday (May 31) and Thursday (June 2) at Alice Birney Elementary School Playground. Doubleheaders both nights, games start 6:45 and 8:30.

SPORTS CAR CLUB — Meeting Wednesday (June 1), 7:30 p.m., Natural History Museum, Balboa Park.

SWIMMING — Free family swim night Saturday (June 4), 7-9:30 p.m., at Mission Beach Plunge. Tickets at employee services and from departmental representatives.

VOLLEYBALL — League games Wednesday evenings, Muni Gym, Balboa Park.

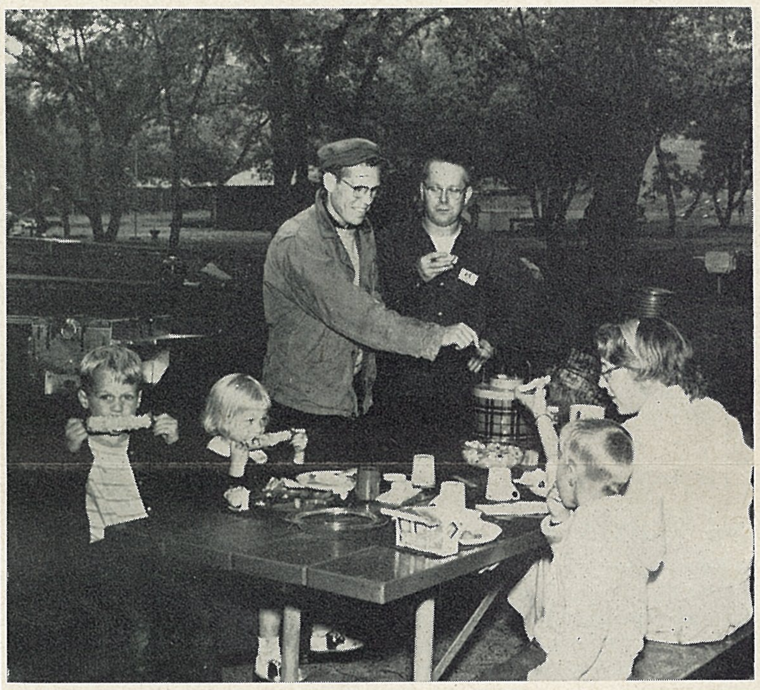
New Bridge Class For SD Beginners Starts Next Week

A new bridge class for beginners, sponsored by the CRA Bridge Club, will be open to interested Convair SD folk starting next Tuesday (May 31).

Classes will be held each Tuesday for 10 weeks at the Barcelona Hotel, 4th and Juniper, starting at 7:30 p.m. Classes, which last about two-and-one-half hours, include both instruction and practice playing sessions.

Fee per lesson is $1. Advance registration is not necessary, but additional information can be obtained by calling Frank Westphal, ext. 2225, Plant 1.

Regular meetings of the Bridge Club are held at the Barcelona Hotel on the first and third Tuesdays of the month. During May an additional playing night is slated for the fifth Tuesday, May 31. Next month bridge players will meet June 7 and 21.



PICNIC PARADISE—Typical Convair SD group enjoying picnic lunch at Pecan Park are (from left): James Ralph, 5, and Carolyn Ann Brown, 3, Klaus Groeger and A. M. Brown (both Dept. 8). Across table are Eric Groeger, 5, and Mrs. Brown.

Planning a Family Picnic? Pecan Park Has Everything

Available for the enjoyment of Convair San Diego people six days every week is one of the best picnic and all-around recreational areas in San Diego County.

"With the advent of summer, Convair Recreation Association again extends an invitation to all SD folk to make use of Pecan Park, especially for family outings," J. K. Field, SD chief of employee services, said last week.

"Pecan Park has been developed by CRA with the family in mind. Continuing improvements and acquisition of additional equipment make the park more and more the perfect spot for virtually any kind of outdoor activity," Field added.

"Families need not make any advance registration," he emphasized.

Pecan Park is located east of San Diego on Hwy. 80 near Johnstown (six miles east of El Cajon). Plenty of parking space is available near entrances at both north and south ends of the park.

Picnic conveniences include tables, benches, barbecue pits (charcoal is available at cost), and drinking water. Beer, soft drinks, candy and cigarettes are available at a concession stand.

For the sports-minded, softball, volleyball, basketball, badminton and shuffleboard courts are installed and equipment is easily obtainable in the park.

A special kiddie playground includes swings, slides, and merry-go-rounds. Teen-agers and agile adults can use playground and gym equipment. A dance floor—complete with music shelter—will accommodate 400. If desired, CRA will furnish records.

The park is open all day every day except Monday. Swing-shifters are especially invited to enjoy their breakfast in the park on weekday mornings. Even though departmental picnics may be scheduled on weekends, private groups are always free to use park facilities.

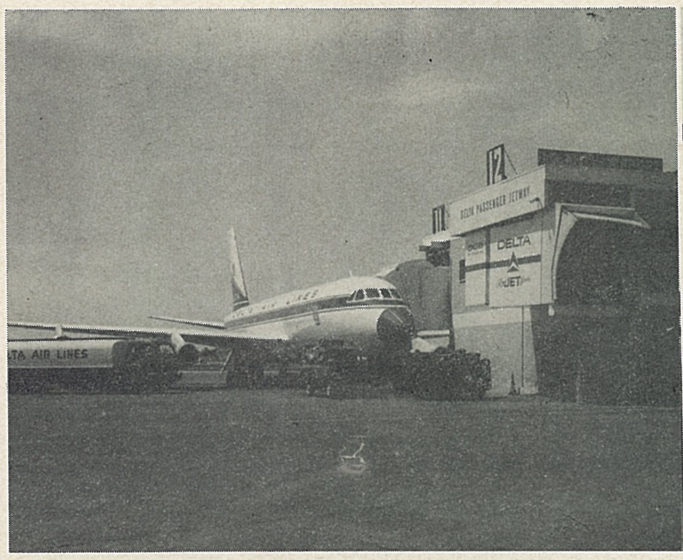
Departments desiring to reserve the park should call the CRA office, ext. 1245, Plant 1. Advice on planning departmental picnics is available from Pete Beyrer of the CRA office.

H. W. Wilson Scores 295-yd. Hole-in-One

Hal W. Wilson (SD Dept. 15-5) May 6 scored a hole-in-one on the 295-yd., par-four fourth hole at Mission Bay Golf Club.

Wilson used a No. 2 wood for the shot which was one of the longest aces ever recorded in San Diego County. It was not only Wilson's first hole-in-one but also his first double eagle.

Rounding out the threesome were R. E. Sommers and J. R. Flitter (both Dept. 15-5).







IN SERVICE—Convair 880s flew commercial passengers for first time May 15 as they went into service over Delta Air Lines network. At left is Delta Queen, first 880 to go to airline, at Atlanta, Ga., airport. In center, C. E. Woolman, Delta president (far right), congratulates J. V. Naish, Convair president, on 880's performance following May 11 press flight from San Diego to Atlanta. Capt. James Longino, who piloted plane, looks on. In shot at right, third Delta 880 touches down briefly at Amon Carter Field, Fort Worth, on delivery flight to Atlanta. Delta will have ten 880s in service by fall.

Soft Music, Soft Lights, Soft Rugs Add to Luxury of Travel in 880s

Soft lights, soft music, soft carpets typify the luxurious atmosphere of Convair 880 interiors planned by Convair SD design engineers for utmost comfort and pleasure of 880 passengers from the moment they enter the airliner until they reach their destination.

"Our design engineers had one object in mind when designing the 880's cabin," said H. A. Mellinger of the 880 project office, "and that was to satisfy the most fastidious taste in comfort—right temperature, pleasant surroundings, comfortable seats—everything possible to please the senses."

Even temperature, good lighting, pleasant music, and harmonious color scheme combine for an attractive setting during 880 flights. Special features installed in 880 interiors, all designed by SD engineers under L. C. Beckett of furnishings, include contoured reclining seats as wide as ordinary living-room chairs, divided by five-inch-wide cushioned armrests. A white goose down pillow is built into every headrest. And the generous space under the seat allows plenty of footroom, enough for a 29-inch pullman case under each.

Overhead are adjustable reading lights, stewardess call buttons, air outlets, and oxygen pods. Hat racks contain roomy stowage bins.

In addition to overhead lights, strips of window valance lights provide extra fluorescent lighting. Three lavatories have hot and cold running water, full mirrors with indirect lighting, and coved vinyl floor covering for absolute cleanliness.

Magazine racks are located in three partitions in the cabin and club compartment. Portable coat dividers, in addition to built-in coat compartments, provide ample storage regardless of season.

The club lounge area provides seating for 12 in contoured lounge chairs and upholstered davenport-type seating. A coffee table, and a removable game table, are placed conveniently for card games, business conferences, or food and beverages.

Padded carpets add to the plushness of the interior and soft background music is piped continuously through the cabin and lounge for a relaxed atmosphere.

Buffets are equipped with brewing type coffeemakers and either warming or roasting ovens, depending upon customer specifications.

Loading and unloading operations are carried out completely on the opposite side of the plane from passenger ramps so that there is no interruption of passenger emplaning or deplaning and to facilitate ground operations.

"All in all," said Mellinger, "we feel as if we have done the best possible job in making the 880 ultra comfortable and pleasant for passengers."



EASY FLYING—Passengers bask in 880 comfort—roomy seats, padded arm and head rests, non-glare windows, folding trays.

Convair Doing Some 'Rug Cutting,' 64 Yards For Each 880 Interior

"Rug-cutting" to the tune of electric shears goes on in a small enclosed mezzanine section of Bldg. 3 at Convair SD Plant 1 every time a Convair jet transport reaches the dressing-up stage.

Huge rolls of wool carpeting are hoisted onto the 8-yard long cutting tables (answer to a dressmaker's dream) in the Bldg. 3 fabric crib. The steady hand of Stelma Hayes (Dept. 129) has cut the carpets for every 880 to be completed with interior.

Each roll contains about 30 yards of the heavy material, explains Robert Barger of Dept. 14-8, in charge of requisitioning and supplying materials as required from Rose Canyon warehouse.

Cabins of the 880 require 64 yards to cover 10-ft. wide expanse and 11 yards to go into the club compartment. Altogether, 38 different pieces of various sizes, shapes, and lengths are cut by Stelma for each plane. She has a paper layout to give exact measurements and a miniature metal template for cut-outs at ends. Longest piece cut at one time measures 219 inches.

She estimates that it takes her about 12 hours to cut carpets for one plane.

When required by the customer airline, carpeting is serged on the machine of Edna Z. Fodor, also of the fabric section. Serging, a button-hole type of stitching, prevents material from fraying along the edge.

After pieces have been cut, Barger sees that they are wrapped, correctly identified, and sent to final assembly where they are fitted together inside the plane. Seat fittings and attachments have already been installed into floor and walls so that rug strips can be laid around them before final placement of seats. Only sections cut out of carpets are for air vents along sides of lower walls.

In charge of Dept. 129-7, fabrics, sound proofing, rubber cutting, is D. G. Cobb, assistant foreman. Panels, curtains, and vinyl floor coverings for entrance areas and lavatories are also cut in the fabric section.

Overseas Managers Study 880 Refueling

Overseas aviation managers of Shell Oil Co. from all parts of the world were at Convair San Diego last week for a briefing on the Convair 880.

They toured the commercial transport line, saw a film on refueling Convair's jet transports, and heard a talk by Ward Mitchell, SD group engineer.

The group of 17 Shell Oil Co. men included aviation managers from Switzerland, Sweden, Italy, France, Germany, Holland, England, Japan, Australia, and India. Others were from the New York office, Los Angeles, and San Diego. Coordinating plans for their visit was Charles Daniels, SD district manager.

'Most Popular Jet Plane in Air' Predicted as 880 Goes to Work

Convair 880 No. 16—now in service with Delta Air Lines—jetted into Carter Field May 6 on a delivery flight from San Diego to Delta headquarters in Atlanta.

Wearing Delta colors, the sleek Convair SD-built jetliner stepped off the "routine" 1,170-mile flight in about two hours.

On hand to greet the newest addition to the nation's commercial airways were members of the Fort Worth Chamber of Commerce aviation committee, Convair FW officials, and a host of admiring visitors.

Capt. T. P. Ball, Delta's superintendent of flight, who piloted the plane part of the way, heaped accolades on the first of ten 880s to go into the Delta fleet.

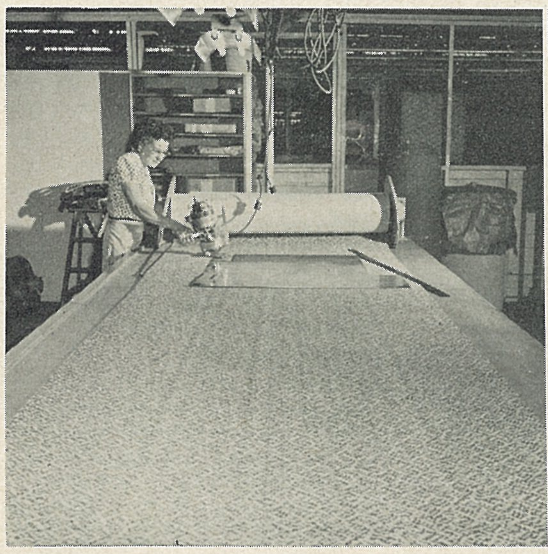
"The 880 will probably be the most popular jet in the air," he said. "It's extremely quiet; it's uncrowded; and it has a tremendous acceleration rate."

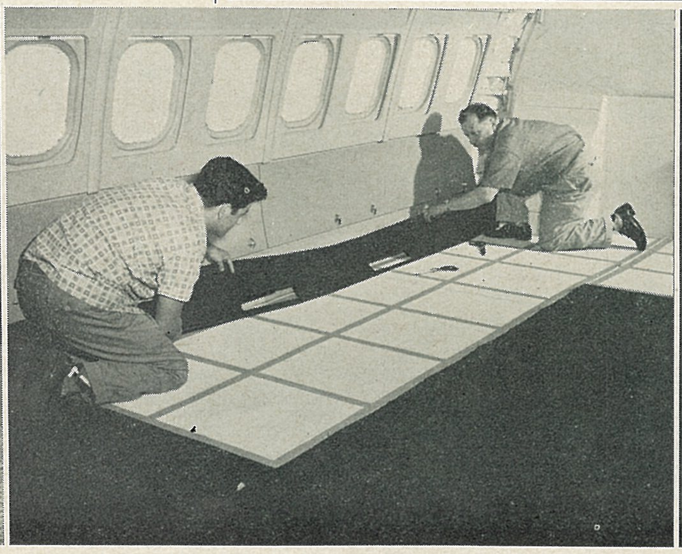
Delta Sales Manager Glenn C. Cowart explained that the 880 can cruise at 615 miles an hour, requiring only 5,200 feet of runway for take-off under normal conditions—5,300 feet for landing.

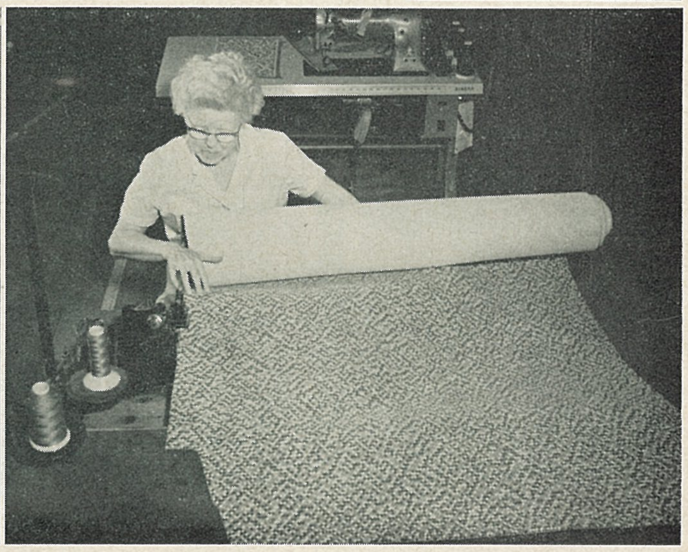
"It can climb 3,700 feet per minute."

The plush Delta 880 carries 84 passengers in two-abreast, first-class seating arrangements.

Sharing pilot duties with Captain Ball on the trip were Captain Ray Bunnell and Second Officer Bob Bryan. John Cooper, with the project engineering office at Convair SD, also made the trip.







LONG CUT—At left, Stelma Hayes of Convair SD Dept. 129 gets set to cut long stretch of carpet for Convair 880 in Bldg. 3 fabric crib. Jesse M. Gomez and Alfred Benavides Sr. of Dept. 160 lay carpet in 880 cabin over foam rubber layer with pressure sensitive tape in center shot. At right, Edna Fodor (Dept. 129) serges edges of carpet to prevent fraying. Carpeting, carrying out color scheme of customer airlines, is stored at Rose Canyon warehouse until needed.

C-V CONVAIR

Published every other Wednesday.

GD GENERAL DYNAMICS

Convair Division of General Dynamics Corporation.

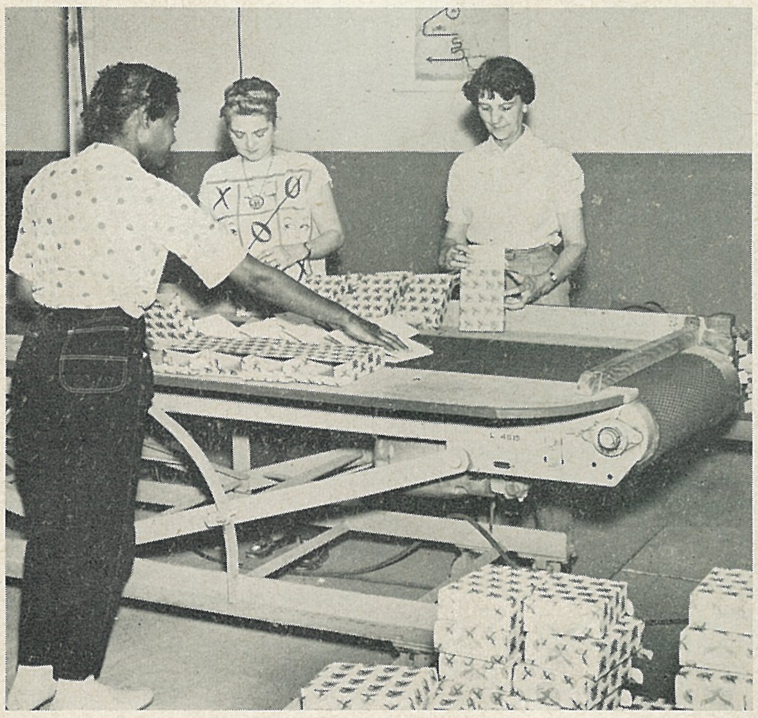
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San Diego EDITION (Serving Convair San Diego)

San Diego news office: Plant 1, Bldg. 32, ext. 1071.

Vol. 13, No. 12 Wednesday, June 8, 1960

SAN DIEGO, POMONA, ANTELOPE VALLEY, VANDENBERG AFB, CALIF. AFMTC, CAPE CANAVERAL, FLA., FORT WORTH, TEX.



ROLLING—First "Project 40" parts are going through shipping at Rose Canyon this week. A special movement is under way at Convair SD to keep parts flowing on schedule. Packaging parts in foreground is Virginia Cannon, across conveyor are Vi Gagne and Anne Pettit (all Dept. 14-4).

All-Division Push Urged To Support 'Project 40'

An all-out effort to maintain a "tight" schedule is in process at Convair SD under recently Air Force-awarded "call" contracts for "Project 40."

Project 40 is a group of Engineering Change Proposals approved by the Air Force that will improve F-106 Air Defense Command squadrons' all-weather mission accomplishment capability.

For the most part, changes involve F-106 communications, navigation and fire control systems and certain airframe modifications.

The changes to improve the SD interceptor's all-weather capability are the result of Convair flight testing and Air Force operational experience, according to O. W. Harper, acting manager, customer service.

T. J. Sullivan, SD operating division assistant manager-contracts, customer service and material, last week emphasized the need for an "all division" effort to insure that schedules are promptly met.

"This program is of great importance to the Air Force and Convair. Each person who comes in contact with the program is asked to go all out to keep Project 40 on schedule," he said.

Project 40 presently represents about 5,000 individual kits of varying numbers of change proposals. Some of these recommended changes are now being incorporated on F-106s presently on the assembly line in Bldg. 2, Plant 2.

At the same time parts are being produced and packaged into individual kits for field installation in ADC interceptors.

(Continued on Page 2)

Eddie Rickenbacker To Fly in 880 at SD

Edward V. "Capt. Eddie" Rickenbacker, chairman of the board, Eastern Airlines, is expected to visit Convair SD Tuesday (June 14) and, depending on plane availability, fly in an 880 prior to an evening speaking engagement in San Diego.

Rickenbacker, one of five members of the National Advisory Board of the Boy Scouts of America, will speak at the Golden Jubilee San Diego County Council Meeting of the BSA.

Reservations ($4.50 each) may be made by phone, CY-8-6124.

During the afternoon, Rickenbacker is also expected to confer with J. V. Naish, Convair president, and J. G. Zevely, Convair vice president-contracts and commercial sales.

Widely Known Commercial Plane Authority Will Be Club Speaker

William Littlewood, vice president—equipment research, American Airlines, will be principal speaker at the June 15 meeting of the Convair SD Management Club in the El Cortez Hotel Caribbean Room.

Internationally known for his contributions in the development of many widely-used American commercial planes (including the Convair-Liner series and the upcoming Convair 600), Littlewood will discuss "Progress in Air Transport."

C. R. Smith, president and chief executive of American Airlines, toured the production line at Convair SD last week. He was accompanied by G. Marion Sadler and R. L. Fitzpatrick, American vice presidents.

Awarding of the SD club's top honor, the Mug of the Year, and installation of officers are also on the meeting's agenda.

"Customer Recognition" will be the theme. Sponsoring are contracts and customer service departments. A social hour will be followed by dinner from 6:30 to 7:30 p.m.

Littlewood, during World War II, served as chairman of an Air Force, Navy and civil aviation committee charged with standardization of air transport aircraft. This committee continued to function as a civil group devoted to the development of requirement specifications for post war transports. Its work greatly influenced subsequent American air transport developments.

Since World War II he has been intimately associated with early discussions resulting in the determination and development of all larger American turbine type transports now under manufacture.

Loomis to Head Division As Coggan Goes to New Position in General Office

B. F. "Sandy" Coggan, effective June 15, will assume a newly created post in General Office and Robert C. Loomis, presently assistant manager at Convair Pomona, will succeed him as vice president and manager of San Diego operating division.

Coggan's new post is vice president-special projects, Convair President J. V. Naish announced.

Loomis, who will report to A. C. Esenwein, executive vice president, joined Convair SD in August, 1948, and was successively director of flight test and research, manager of inspection and flight and manager of the B-36 recycling program. He transferred to Pomona in 1952.

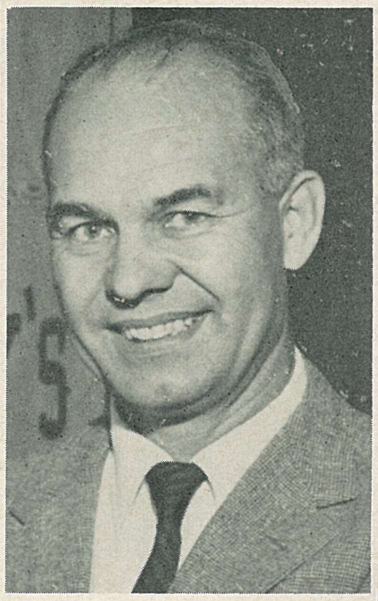
In his new capacity Coggan will be responsible for developing a program in advanced commercial and industrial products and systems which are compatible with Convair's established product policies and capabilities. He will report directly to Naish.

Loomis has been division operations manager and division works manager at Pomona and became assistant manager-operations in September, 1953.

After his graduation from the University of California at Berkeley with a Bachelor of Science degree in mechanical engineering in 1935, Loomis served for four years as a commissioned officer in the Navy. From 1939 to 1940 he was a petroleum research engineer with Standard Oil Company of California. From 1940 to 1943 he was director of engineering and overhaul with Trans World Airlines.

Coggan has been manager of Convair San Diego since 1952 and a vice president since 1957. He brings to the new position over 20 years of industrial experience in electronics, aircraft, missile and automotive fields. He holds a master's degree in electronics from Michigan State University. He is a registered electrical engineer in the State of California and a licensed aircraft pilot. From 1939 to 1952, he held various top executive positions with General Motors Corp.

He will remain in San Diego.



NEW MANAGER — Robert C. Loomis, above, will take over June 15 as manager of San Diego operating division, and Convair vice president.



TO NEW POST—B. F. Coggan, above, will take over new position June 15, vice president-special projects, in Convair's General Office.

Blood Bank Credit Upped by 77 Pints

Convair San Diego blood donors gave 77 pints at the May 26 bloodmobile Plant 1 visit, enough to last through another month.

Ken Wulfemeyer of SD employee services said that the supply on hand should carry through until July when the next bloodmobile will be scheduled at Plant 2. No bloodmobile visit will be held this month.

600 Jet Transport No. 3 Enters Production Line

Convair 600 jet transport No. 3 went onto the production line at Convair San Diego Plant 1 last week.

First 600, sister ship to the Convair 880, which went onto the line in March, is now in major mate in Bldg. 2. It is scheduled for completion and flight operations this fall. Second 600 is stationed in primary assembly between Nos. 32 and 33 of the basic 880s. Three 880s are positioned on the line in between each of the 600s.

The transport production line is slated for moves every five days for the present, said P. G. Osborn, SD factory manager.

Four 880s are in final assembly—Nos. 24, 25, 26, and 27. No. 24 is the next plane due to go to field operations. Three of the Convair transports are in major mate, two in Bldg. 3 and one in Bldg. 2. Nos. 31 through 35 are on the primary assembly line with wings for Nos. 36, 38, and 39 in the bucks.

First 880-M version for Capital Airlines will be designated plane No. 37 and is slated to follow No. 40. Another 600 will take its place on the line after No. 41.

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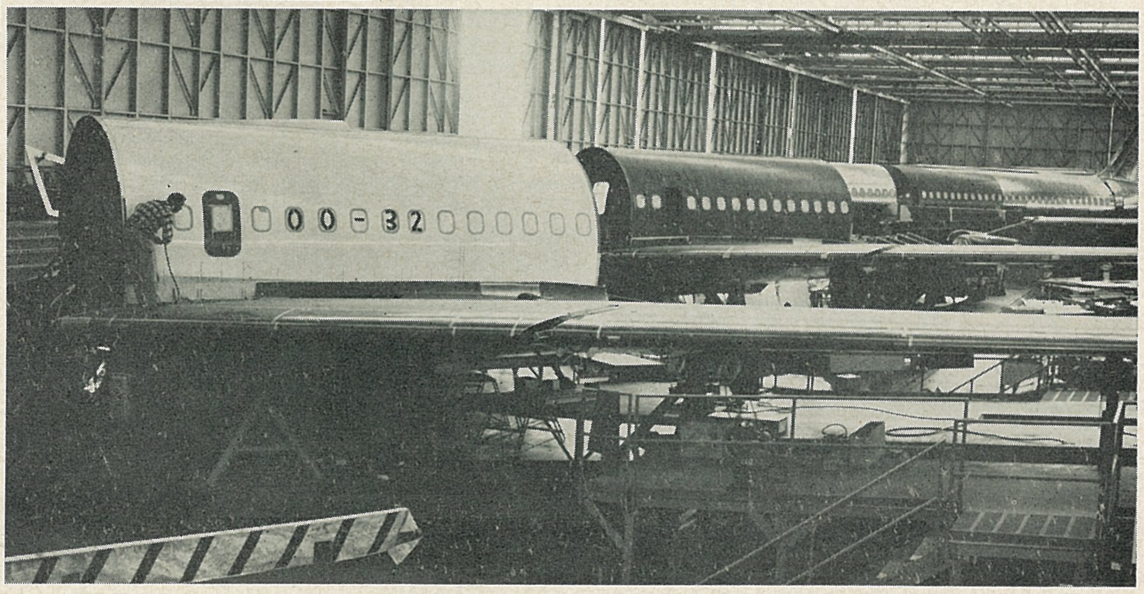
NEW PAINT SYSTEM TRIED OUT ON 880

A gleaming white fuselage is moving down the Convair 880 line in Bldg. 2, in startling contrast to its green-covered companions.

In a trial run on 880 painting methods, No. 32 has been chosen to receive its white and red color scheme before mating. After it reaches final assembly, it will be thoroughly inspected to determine how well the paint has protected the skin, how well the paint has adhered through mating, and how much retouching will be necessary. Accepted method previously has been to give planes their entire paint jobs in final assembly.

Tail, nose sections, and over-wing barrel were painted in the large weather-controlled paint booth in Bldg. 2 under supervi-

(Continued on Page 2)



WHITE SISTER—Convair 880 No. 32 goes down production line at Plant 1 garbed in gleaming white in trial run of "before or after" painting method. Planes now are painted in final assembly.

Col. Bostwick, AF Plant Rep. at SD, Ordered to New Post in France

Col. George E. Bostwick, Air Force plant representative at Convair San Diego since July of 1956, has been assigned to the logistics group of the Air Materiel Force European Area in Chateauroux, France.

He will be succeeded at Convair San Diego by Lt. Col. Charles W. Atterholt, who coincidentally, will be leaving a post with the procurement section of AMFEA in Chateauroux.

New posts will become effective for both officers about the middle of July.

Previous to his appointment as Air Force plant representative at Convair SD, Colonel Bostwick had been associated with the F-102 program for over five years.

In 1951, Colonel Bostwick was named F-102 project officer for the Air Materiel Command, a position he held until 1954 when he became chief of AMC's fighter branch. He continued in this post until 1955 when he reported to the Air War College, graduating in June of 1956.

Bus Schedules Reduced at SD

Buses are making runs in between Convair San Diego plants and off-site points about half as often after curtailment of interplant service last week.

Schedule for first shift is the only one affected, said B. R. Hisaw, chief of transportation operations. Little change, if any, will be made in second shift service.

Buses serving Plant 1, 2 and Rose Canyon warehouse are running every hour instead of on the previous half-hour schedule.

Between Plant 1, ramp and gun butts, three trips will be made each morning and three each afternoon. Two trips in the morning and two in the afternoon will connect Plant 1 with service parts buildings on Fordham St.

New schedules have been placed at all bus departure points showing the new times.

SD Will Update Alarm System

Plant engineering crews are renovating the fire alarm monitoring system at Convair San Diego Plant 1.

All of the system's electrical wiring will be repaired or replaced by the first of the year, said Vern Sharp, assistant chief plant engineer. Some of the lines, in use since construction of the plant, have deteriorated with age or damage by insects.

The console in Plant 1 fire house which receives alerts in case of leakage or fire also will be completely rebuilt and modernized, said Sharp.

The electrical wiring connects valve control points of the plant's fire mains and branches with the firehouse console, designating specific trouble spot.

Zone valves and control valves at Plant 2 are being repaired.

Navy Officers Plan to Retire

Three officers in the Bureau of Naval Weapons office at Convair San Diego will retire June 30, and each plans to make San Diego his permanent home.

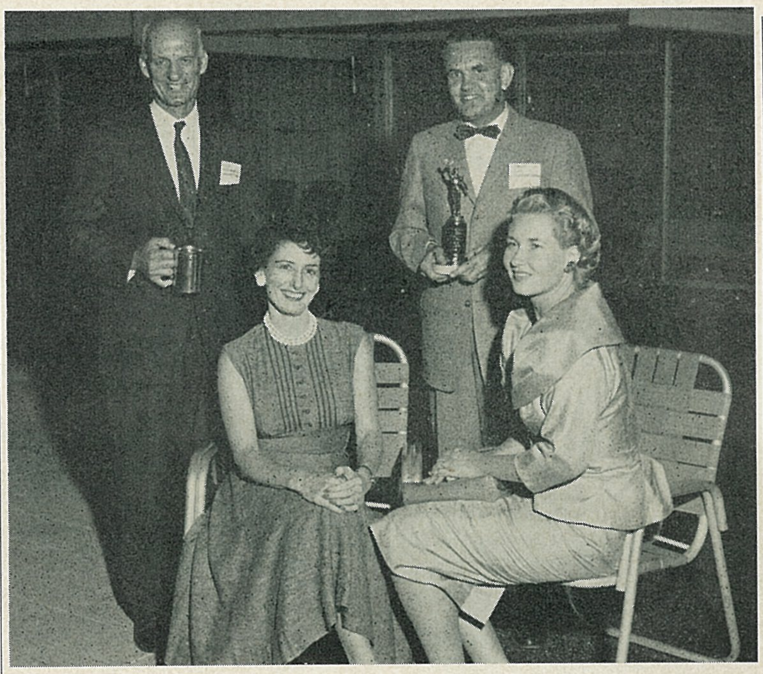
They are Capt. Darwin M. Wisehaupt, USN, BuNavWep representative; Cdr. Henry G. McDonough, USN, assistant representative, and Cdr. Oscar E. Loeser, USN, special projects officer.

Capt. R. L. Savage, USN, will replace Capt. Wisehaupt as BuNavWep representative at Convair San Diego. He is expected to report sometime in August, said Cdr. W. A. Matthews, USN, administrative officer.

The Bureau of Naval Weapons office, formerly called the Bureau of Aeronautics office, is located on the third floor of Bldg. 19. It administers and coordinates Navy contracts in the San Diego area.

Upon his retirement, Capt. Wisehaupt will have completed 30 years in the Navy. He has been at Convair SD since October of 1957. Previously he had been with the contracts division, Bureau of Aeronautics.

Cdr. McDonough has been in the local Navy office since July of 1958, and Cdr. Loeser has served a duty tour at Convair SD since August of the same year. The retiring officers have piled up more than 80 years of Navy service.



HONORED—Ed Caldwell (Dept. 188) received Mug of Month and Jack W. Cox (Dept. 170) took MacSave-it award for cost reduction efforts at May meeting of Convair SD Management Club. Wives of members were in attendance. Mr. and Mrs. Caldwell are on left. In 1959 Cox was recipient of President's Award.

600 Jet Transport No. 3 Enters Production Line

(Continued from Page 1)

sion of H. B. McIntosh, Dept. 160 assistant foreman. The 48x90-ft. area is large enough to handle all three components at one time with a 20-ft., 7-in. clearance under the large overhead door. C. W. Johnson and I. T. Andrews, assistant foremen, directed operations on second and third shifts.

So far, say 880 foremen on the line, the paint covering seems to give better skin protection during assembly work. However, no definite evaluation will be made until the plane has been through the entire production process, said McIntosh.

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FUEL CALIBRATION TESTS CONDUCTED

An 880 is sticking its nose in the air in Convair SD experimental yard during fuel calibration tests.

During the last ten days or so a crew of test engineers, field operations, experimental mechanics have been putting the plane into 390 different nose and wing angles to determine fuel tank readings at various attitudes.

B. A. Pegel, thermodynamics test engineer in charge of the project, explained that, by use of charts showing drip stick readings at different attitudes, ground crews will be able to tell exactly how much fuel is in 880 tanks, no matter how uneven the ground on which the plane stands. Many airports, especially in other countries, are, of necessity, built on unlevel ground, he said.

During calibration of drip stick fuel quantity readings, the 880 is propped on wooden blocks—30 inches high under the main landing gear and five feet under the nose landing gear. At its highest point, the nose is 11 feet off the ground. Wings are rolled from plus two degrees to minus two degrees by extending struts.

A hundred gallons of fuel are put into each of the plane's four tanks and the plane rolled through 17 attitudes with 16 drip stick readings at each position. The process will be continued until information is gathered for all of the total 390 plane angles.

Cause of 880 Crash Sought

Civil Aeronautics Board investigation continued last week to determine cause of a Delta Air Lines 880 crash which took the lives of four Delta crewmen and demolished the plane.

The Convair jet transport, third delivered to Delta, crashed shortly after takeoff on a May 23 training flight at Atlanta, Ga.

Killed were Capt. James H. Longino, Capt. H. L. Laube, Capt. W. F. Williams, and First Officer B. E. Bolt. Both Captain Longino and Bolt were known at Convair San Diego where they attended ground school and flight training.

A team of Convair men left San Diego immediately to join field service representatives on the spot — C. A. Zeiss, R. W. Fitzgerald, F. D. Laffoon, H. I. Morgan. Among those at Atlanta to assist Delta in investigation were Ralph Bayless, Convair director of engineering; P. M. Prophett, assistant chief engineer-flight test; R. K. Hall, field service transport supervisor; A. P. Wilson, production flight pilot; and a group of SD engineers including Robert Dutton, J. Spencer, Ted Draper, Waldo Darracq, Dwight Bennett, and Tom Heid, FAA designee.



F-106 DISCUSSION—Maj. Gen. S. W. Agee, commander of 26th Air Division (SAGE), Air Defense Command, and Air Vice Marshal G. C. Eveleigh, Royal Air Force, discuss merits of Convair-built F-106 during briefing and tour of SAGE system at Hancock Field, Syracuse, N.Y.

All-Division Effort Urged

(Continued from Page 1)

Under contractual requirements as of last week, Convair SD will lend technical and factory assistance in field installation areas.

First kits are being readied for delivery to the Air Force this week.

The number of changes incorporated in the planes will vary. F-106s produced early in the program will need a greater number, later models will need fewer.

Project 40 derives its name from the number of changes recommended last month during Air Force-Convair negotiations.

TOASTMISTRESSES HONOR PRESIDENTS

Five past presidents of Delta Toastmistress Club were honored on the third anniversary of the Convair women's group. A special dinner marking the occasion was held May 24 at Calabrese's Restaurant.

Honor guests who have headed the club in six-month terms since its inception were Jeanne Davies, wife of E. H. Davies of Astro; Grayce Fath (Dept. 1-32); Charlotte Fink (Dept. 34-1); Mary Smith (Dept. 6); and Virginia Reynolds (Dept. 325-2 at Astro). Marge West of SD Dept. 6 is president during the current term.

Special program for the anniversary celebration featured a fashion show by Marston's.

DEPT. 217 COUPLE MARRY AT VEGAS

Dira Rodrigues and Ronnie C. Bauld, both of Dept. 217 San Diego, were married April 23 in Las Vegas, Nev. They are making their home in San Diego.

Is It News?

Call Convairiety

SD's Marshall Recognized by Jr. Achievement

W. H. Marshall of Convair SD Dept. 25 was recognized for the many hours he has devoted to Junior Acihevement work when he was tabbed "director of the year" at the annual Junior Achievement banquet.

Marshall, chief adviser for JA companies sponsored by Convair SD Management Club, has directed teen-age business companies in the program during the last two years.

This year he not only served as chief adviser for both groups, but personally headed advisory staff of one, JA Multa Products Co.

Activities of JA companies came to an end last month with both Convair groups breaking even. JA Multa Products closed its books showing a profit which was distributed in bonuses to the young businessmen who had made and sold over 360 bacon fryers. The perforated lids to keep bacon straight during cooking were named "Kitchen Boys" by their producers as a sales gimmick.

The JA Unico Products Co. just covered operating expenses and wages over the nine-month term. The group first made corsages for the annual Management Club dance and then ashtrays and coasters during the spring months. Convair men directing Unico Products were V. J. Rocco and Otto Barksdale, both of Dept. 115.

Marshall was assisted by M. B. Bodger (Dept. 31) in supervision of Multa Products.

Diane Yarbrough, one of the ten teen-agers in Multa Products Co., stood second among all girls of the 28 San Diego companies in a contest, based primarily on business comprehension.

New Overpass Will Open Soon

Convair SD travelers between Bldg. 19 and Bldg. 5 at Plant 1 will be finding their way across a new overpass route soon — probably by the end of this month.

The Bldg. 19 overpass will take pedestrians across the roof of the new plant cafeteria and onto the original section of the overpass connecting with Bldg. 5 second floor entrance.

The cafeteria itself should be reaching completion stage by the middle of July if present progress continues, said H. A. Smith, SD chief plant engineer. It will go into operation immediately and the old cafeteria building fronting Pacific Highway demolished. Vacated area will be surfaced for parking.

Interior partitions, wiring, plumbing, ventilation, and lighting fixtures are now going into the new cafeteria building and the final seal covering is being applied to the roof surface.

CONVAIR SCHOLAR WILL GET DEGREE

Second Convair SD son to graduate from college on a Convair Sons Scholarship will receive his bachelor's degree from Stanford this month.

Ronald Knudsen, son of K.A.E. Knudsen of Dept. 400-3, has majored in electronics during his four years of undergraduate work. Present plans indicate that he will join Convair San Diego following graduation.

Burrell Hatcher, first son to receive his degree, was graduated last year from M.I.T., also in electronics. He has been connected with an electronics firm in Massachusetts while he continues graduate study. His father, B. R. Hatcher, is a design engineer at Convair SD.

The graduation of Knudsen leaves 12 scholarship winners still attending colleges on the four-year Sons Scholarship awards.

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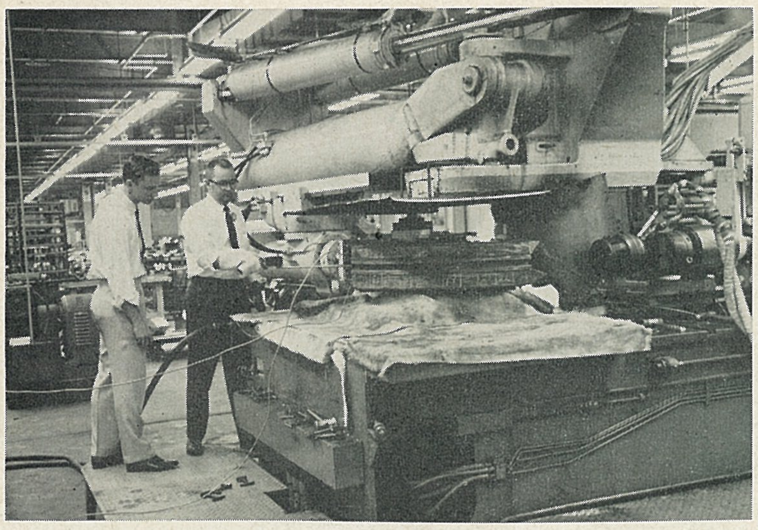
SD Editorial Offices, Building 32, Plant 1, ext. 1071. Staff: Grayce Fath, Helen Pemberton, Fred Bettinger.

Astronautics Editorial Offices, Bldg. 8, Astro site, ext. 3322. Staff: Bryan Weickersheimmer, news editor; Alyce Martin. News contacts: AFMTC, Evelyn Poole, ext. 4011; Warren AFB, Bill Jack, ext. 7-2254. Offutt AFB, David Reichenbacher, ext. 264, Cherry Gocken, ext. 348.

FW Editorial Offices, Col. 73C, ext. 2961. Mailing address: Convairiety, Convair, Fort Worth, Texas. Telephone PErshing 8-7311. Staff: Dave Lewis, news editor; Susan Bagby, Mary Beck.

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Antelope Valley Editorial Office, Room 103, Bldg. 301 B, Palmdale, ext. 337.



SIMULTANEOUS—Heated die, where simultaneous aging and forming of titanium B-58 nacelle panels is done at Convair FW, is inspected by R. E. "Bob" Johnson, left, of materials and processes group, and R. J. "Dick" McClintick, formerly of process control.

Titanium Parts Formed, Aged At Same Time in New Process

A revolutionary method of simultaneous forming and aging titanium parts used on the underside of B-58 engine nacelles has been pioneered at Convair FW. It reduces time for the process from six hours to 30 minutes and saves an estimated $15,000 on nacelles for every ten ships.

In the method formerly used, parts had to be formed in gas-heated dies at 900 degrees Fahrenheit and held in expensive fixtures while they aged (a strengthening process) for six hours.

Engineers found that if temperature was raised to 1,000 degrees, simultaneous forming and aging could be accomplished in from ten to 30 minutes. And it will no longer be necessary to fabricate the fixtures to hold parts for hours of aging.

R. E. "Bob" Johnson of materials and processes group, and R. J. "Dick" McClintick, formerly of process control, combined to publicize this new process in an article in the May issue of "Metals Progress" magazine.

Now several aircraft companies in the country are discussing adoption of the speeded-up simultaneous forming-aging for parts on their own products.

Pro Photographers Elect Convair Man

L. W. Rutledge of the Convair San Diego photo lab last month was installed as president of the Professional Photographers Association of San Diego County.

Justus Ahrend, secretary of the Professional Photographers Association of California, installed officers at a banquet in the San Diego Club.

Astro Employment Passes 19,000 Mark

Astronautics employment late last month climbed above the 19,000 mark.

Of these, 4,852 were working at off-site locations including 1,035 at the Air Force Missile Test Center; 55 at Sheppard AFB; 493 at Sycamore Canyon; 324 at the Missile Static Test Site; 1,013 at Vandenberg AFB; 964 at Warren AFB; 686 at Offutt AFB; 266 at Fairchild AFB, and 16 at Forbes AFB.

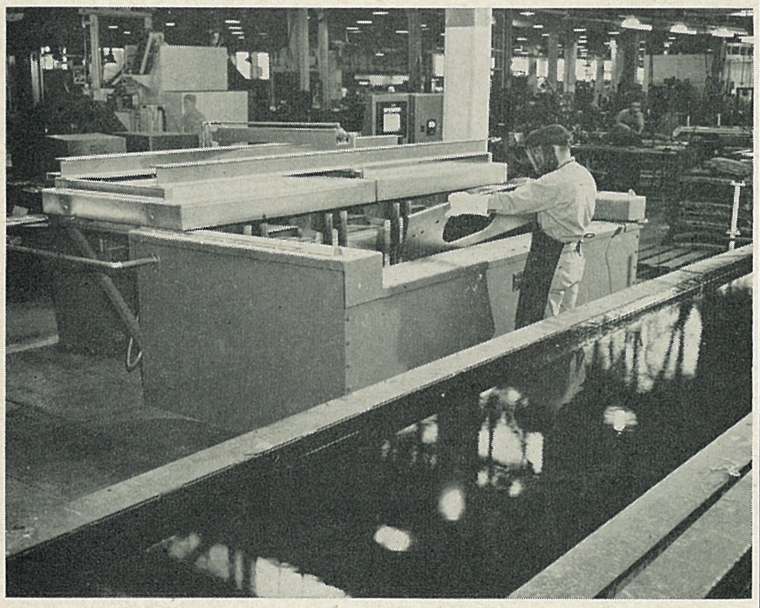
Salt Bath Furnace Installed To Treat Aluminum Parts at SD

Thousands of structural parts destined for Convair jet transports will be going into a new aluminum salt bath furnace recently installed in the sheet metal department in Bldg. 1 at Convair SD Plant 1.

Designed to lessen distortion of aluminum alloy parts, the 10-foot long furnace is capable of processing approximately 400 lbs. of 880 and 600 parts each hour. Heat range of the oven is from 800 to 1,200 degrees F. with normal operating temperature to be 925 degrees. Heat is automatically controlled and locked on temperature.

Pieces, either singly or in batches, are dunked into a salt solution made from 22,000 lbs. of sodium nitrate needed to fill the furnace. After required length of time in the extremely hot solution, ranging from a few minutes to several hours depending upon thickness of parts, pieces are transferred to a cold water quench tank. There they are brought to below room temperature in less than 10 seconds. They next go into a companion rinse tank to remove excess salt.

The new furnace, made by Holden-Pacific Corp., Los Angeles, is expected to reduce time needed in fabrication and to improve quality of sheet metal parts, explained Leo Budzynski, foreman of Dept. 101 sheet metal section.



HOT BATH—Dale Winkler of Convair SD sheet metal department is protected by face mask and asbestos gloves as he dunks bulkhead web for Convair jet transport into 925-degree salt solution in new heat treat furnace.

Engineers to Serve On Cal. U. Faculty For Summer Term

Twelve Convair engineers will serve on the summer session faculty for University of California Extension courses at San Diego.

Instructors from Astronautics are C. G. Erickson, senior electronics engineer; J. J. Fithian, electronics engineer; E. M. Getzoff, mechanical engineer; E. A. Hamilton, electronics engineer; W. D. Montgomery, research engineer; P. J. Swanson, group engineer; B. F. W. Witte, senior research engineer.

Convair San Diego men who will be teaching classes are K. C. Hendershot, senior thermodynamics engineer; J. B. Herreshoff, design specialist; J. P. Mitchell, senior research engineer; R. K. Walter, design specialist; H. T. Wexler, engineering staff specialist.

Erickson, Getzoff, Hendershot, and Swanson will conduct a "Review of Mechanical Engineering Fundamentals"; Fithian, Hamilton, and Walter, "Electrical Engineering Review."

Herreshoff will teach "Engineering Fundamentals"; Wexler, "Flight Mechanics and Performance." Montgomery, Mitchell, and Witte will instruct classes in mathematical subjects — linear algebra, trigonometry, and automatic digital computers.

Registration information is available through the Extension office, 1221 Fourth Ave., BE-2-7321. For information on engineering review classes, timed to prepare students for state examinations for civil and professional engineers registration, call AT-1-0427.

Final date to file for November Professional Registration examinations is July 1.



SPEED AWARD—Ken Hinman of Convair SD aerodynamics and D. S. Oesterle, SD thermodynamics group, recently accepted National Aeronautics Association trophy for F-106 speed record on behalf of Maj. J. W. Rogers, AF pilot of Dec. 15 flight. Hinman and Oesterle were instrumental in flight planning.

Convair SD and Astro Scholars to Receive Cal-Western Degrees

First master's degree awarded under the Convair-California Western University's cooperative program will go to J. H. Grisham of SD educational services.

Grisham, who has been taking graduate work at Cal Western since the spring semester of 1958, will receive his master's in business administration at June graduation ceremonies. He has specialized in the field of personnel administration.

Three Astro men will receive bachelor of business administration degrees at the same time. Donald E. Brannan (Dept. 335-2) majored in industrial management; John R. Holter (Dept. 335-1), in business administration; and Raymond Mendoza (Dept. 130-5), general business.

Mendoza and Holter have been attending classes since the fall of 1954 while Brannan enrolled in the spring semester of 1956.



ON VIEW—F-102 sporting gaudy orange and black paint job on tail attracts German spectators during Armed Forces Day open house of 496th FIS, Hahn Air Base, Germany.

65,000—That's Right, 65,000!—View F-102s in Day at German Base

Over 65,000 were on hand to view F-102s at Hahn Air Base, Germany, during Armed Forces Day early last month.

Convair-built F-102s, assigned to the 496th Fighter-Interceptor Squadron, took part in high-performance takeoffs and flybys. A static display included models of Convair products — F-102A, F-106B, Terrier missile, and an Atlas ICBM appropriated from the desk of C. H. (Tex) Clements, area field service supervisor for Convair.

"Visitors showed a lot of interest in the Convair display," reported John E. Dodge, Convair SD field representative at Hahn. "They certainly turn out for affairs like this in Germany."

Convair planes and missiles took a major part in similar Armed Forces Day observances throughout the entire United States.

"A tremendous crowd of 337,897 attended the annual Andrews AFB, Md., show," wrote F. H. Weaver, Convair representative with the 95th FIS. "Consensus was that Convair equipment highlighted the show with flybys and maximum takeoff performance of F-102, F-106, and B-58 aircraft."

Business Budgeters Elect Convair Man

John B. Morgan, Astronautics chief of off-site accounting, has been named a regional director for the western area in the National Society for Business Budgeting.

Morgan serves as president of the San Diego Chapter. In his new post he will represent chapters in San Diego, Denver, Salt Lake City, Albuquerque, San Francisco, and Los Angeles. The national organization includes some 1,500 budget executives in 44 chapters across the country.

Top-Loading Boxcars Prove Selves Valuable in Damage Reduction

Not one instance of damage has occurred—in loading, transit or unloading — since new top-loading railroad boxcars began bringing aluminum sheet and wire to Convair FW.

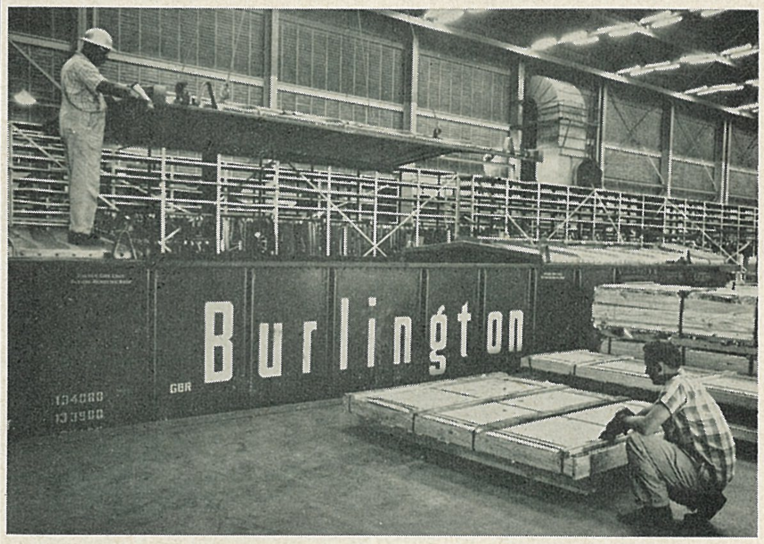
The removable tops on the cars are lifted off by hooks dropped from monorails in the receiving area just inside the south end of the building.

Although the old type sliding side door boxcars still deliver much of the aluminum to the Fort Worth plant, Jerry Moran, Dept. 4-5, says hopes are that they will be entirely replaced by the top-loading type.

"There's no comparison in the amount of time and money saved because of the reduced damage," he reported.

Main reason for damage reduction is that cargo can be unloaded by overhead lift, running far less danger than with a fork.

Also, cargo can be adequately braced in the new type car, minimizing in-transit damage. Proper bracing is not always possible in side-loading cars because of the necessity to allow for doors.



DOORLESS—Jerry Moran, Dept. 4-5, inspects shipment of sheet aluminum, undamaged after shipment in boxcar in background, which loads from top. Directing replacement of top covering is W. M. Mills, Dept. 20-2.

Single Key, Missing From Typewriter, Delays Typing of Book on Physics

Dr. E. L. Secrest, who in his spare time is writing a text book on "Applied Reactor Physics," may change the name of his tome to "The Case of the Missing Key."

It seems Dr. Secrest, Convair FW's chief of applied research, had to order a typewriter equipped with 18 special keys to be used in typing the manuscript. The special typewriter arrived a few days later —minus one of the keys.

Dr. Secrest reordered the one special key and promptly received another complete typewriter — with the same special key still missing.

"For want of a key," Dr. Secrest moaned, "a book may be lost."



NEW ARTISTS—Gene Knowles of Convair SD Dept. 6 (standing) instructs Sheltered Workshop class in industrial illustrating. Around table from left are JoAnn Baught, Florence Roberts, Nathaniel Griggs, David Sterling, Griff Davies, John Crivello, Dorothy Baltes, Bonnie Farmer, and Albert Brown.

SD Illustrator Spends Spare Time Teaching Art to Less Fortunate

A broken leg suffered years ago helped a Convair SD illustrator decide to open new vistas for those less fortunate.

E. L. (Gene) Knowles, illustrator in Dept. 6 for the last nine years, is passing on his knowledge and tricks of the trade to a group of physically impaired men and women at Sheltered Workshops of San Diego, Inc.

Learning that work was slacking off at the rehabilitation center where such people are being trained to take their place in industry, Knowles came up with the idea of classes in industrial illustrating.

"I think I can understand just how people tied to wheelchairs and crutches feel after I was laid up with a broken leg when I first came to Convair," he said. "And I know that anyone who can hold a pencil or pen and wants to learn, doesn't need to move to be a good illustrator."

He now teaches an enthusiastic group in the evenings with several doing so well that he is sure they will be able to fit into related positions soon.

Some had a natural artistic ability, he said, and others had never tried to draw a line. "I'd much rather have a determined student than a lazy, artistic one," he said. "Anyone with the desire to learn can acquire the ability."

He first puts them to sketching — people, flowers, objects, tools, instruments, and anything in sight. Then he teaches them to true up the sketches to measurement and ink them. He also will instruct his classes in air brush and photo retouch work to open other fields.

J. W. (Bill) Sharpe, executive director of Sheltered Workshops, is more than enthusiastic about Knowles' work. "The art classes have sparked a new spirit in our people," he said. "As the first off-work training at the Workshops, they've paved the way for other classes in electronics and basic machine shop to help us keep pace with industrial advances."

Knowles not only devotes two nights each week to his Sheltered Workshop classes, but also gives instruction at his Kensington studio to anyone who wants to learn industrial illustrating.

"I think that good art makes a better world, and I'm only too happy to pass on whatever knowledge I have. The only charge is the promise of each student to give the same help to someone else."

New Officers Take Over Posts On Dynamics Reliability Panel

Convair San Diego men were appointed to two of the three posts heading the company-wide General Dynamics Corporation reliability panel at its sixth meeting, held May 20-21 at Convair Pomona.

W. R. Monroe, Convair SD manager of reliability, will be chairman of the 31-member group representing all Convair divisions, Canadair Ltd., Liquid Carbonic, Electric Boat, and Stromberg-Carlson. Monroe, who headed the panel's research section during the last year, succeeds J. Y. McClure, Convair FW manager of quality control.

Deputy chairman for the next year is A. E. Dohna, chief of Electric Boat quality control engineering. Paul M. Benner, chief of inspection Convair SD Plant 2, will serve as secretary.

Organized in the fall of 1958, the panel of top reliability, quality control, and engineering experts from General Dynamics Corporation Divisions gather quarterly to exchange information aimed at promoting and improving reliability and cost of General Dynamic products.

Standardization of reliability terminology, qualification testing, personnel qualifications and training, reliability techniques were among subjects under consideration at the Pomona gathering.

Symposium papers were given by J. C. Bear and Ray Soward, both Convair Pomona; Dr. N. H. Simpson, Convair Fort Worth; George Vincent and William Karas, Stromberg-Carlson; A. B. Oxley of Canadair. A. C. McMaster of Convair Pomona showed a film on Terrier missile.

L. B. Richardson, senior vice president of General Dynamics Corporation, commented on the effectiveness of the panel.

Previous meetings have been held at Dayton, Ohio; San Diego, Calif.; Rochester, N. Y.; Washington, D. C. Next one will be Aug. 31-Sept. 1 in Montreal.

Present at the May 20-21 meeting were: R. D. Chase, J. L. Coburn, G. E. Owen, J. Y. McClure, Dr. N. H. Simpson of Convair FW; J. E. Trader, L. I. Medlock, and H. F. Eppenstein of Convair Astronautics; W. G. Bjornson, W. R. Monroe, G. A. Covington of Convair San Diego; A. E. Dohna, J. F. Dallinger of Electric Boat; J. G. Hansen, E. S. Winlund, E. I. Roberts, J. J. Holland, G. R. Vincent, W. P. Karas, C. W. Holden, K. F. Phelham of Stromberg-Carlson; A. L. Oxley and H. L. McKeown of Canadair; L. B. Richardson of General Dynamics Corporation; D. Anderson of Convair General Office; G. E. Sylvester, T. A. Vogel, A. C. McMaster, C. D. Perrine, J. W. Dunnifon of Convair Pomona.

Injection

Ailing Trees Recover When 'Shot' by Nail

R. L. Laing has "nailed" down his own remedy for revitalizing withering plants and trees.

The inventive Convair FW engineer simply drives a specially treated nail into ailing trees. In a matter of a few weeks, he claims, the tree is usually sporting lush green leaves.

Laing says his concoction contains all the necessary "trace" elements.

"A trace element," he explained, "is a catalyst used in all plant growth processes. Minute traces of these elements — such as magnesium, copper and iron — actually trigger the growth processes."

Laing discovered these and countless other facts while boning up on his avocation at Michigan State.

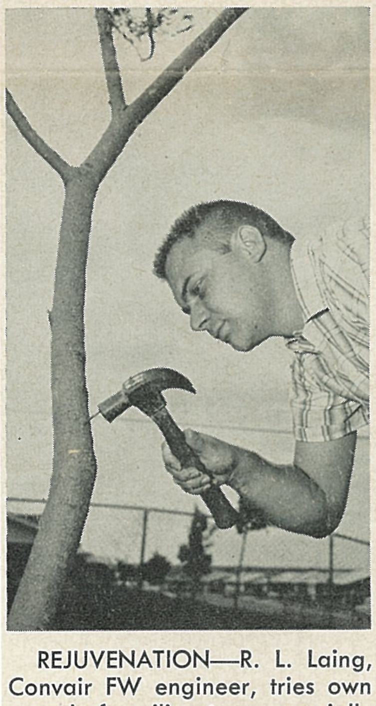
Using a water soluble glue, Laing cooked up a substance containing these trace elements which would stick on a 1⅝-inch nail.

"I tried the nail out first on a Maple tree in my back yard," Laing said. "In a matter of days the leaves of the tree seemed to bounce back to life."

But there are times when a tree can get too healthy. Laing has such a specimen in his own back yard which is growing farther and faster than he desired.

To slow down the fast-growing tree, Laing is busy now on a nail which is "over-loaded" with trace elements. He thinks that an overdose of these elements will deter growth.

"Trees — like people — can't stand too much of a good thing," he philosophized.



REJUVENATION—R. L. Laing, Convair FW engineer, tries own remedy for ailing tree—specially treated nail hammered into the "patient."

Russell to Speak At NMA Convention

R. D. A. Russell of educational services section at Convair FW has been invited by the National Management Association to speak at two concurrent sessions of its October convention in Atlanta, Ga.

Russell, who is a member of the NMA Speakers Bureau, will talk on "The Power of Persuasion."

NEWS FROM OTHER DYNAMICS DIVISIONS

General Dynamics Corporation, created in April, 1952, as successor to Electric Boat Company, is composed of seven divisions and a Canadian subsidiary, Canadair Limited, of Montreal, airframe builders. The divisions are:

Convair, head offices at San Diego, Calif., aircraft, missiles, and space systems.

Electric Boat of Groton, Conn., submarines.

Stromberg-Carlson, of Rochester, N. Y., telecommunications, electronic equipment.

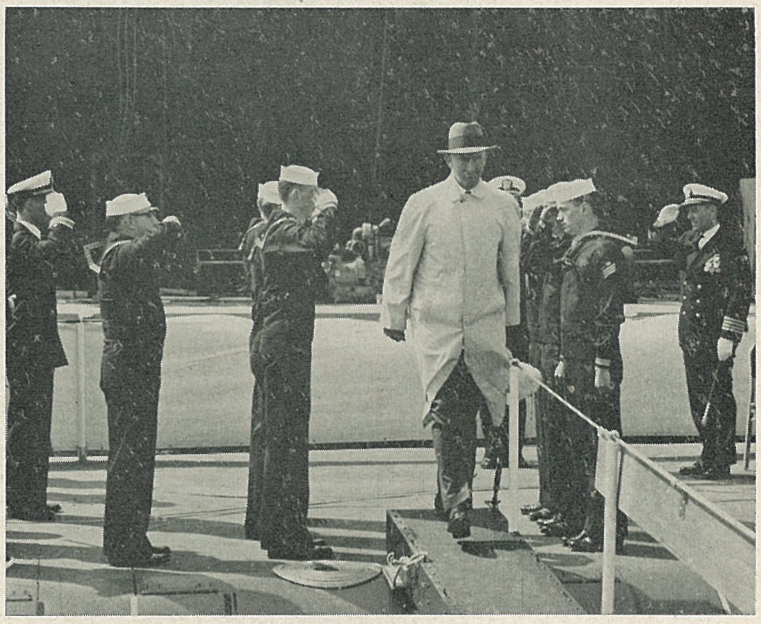
Liquid Carbonic of Chicago, Ill., carbon dioxide producer, industrial and medical gases.

General Atomic of San Diego, Calif., nuclear research, development, production.

Electro Dynamic of Bayonne, N. J., electric motors, generators.

Material Service Division, Chicago, Ill., building materials, concrete products and coal.

* * *



AT COMMISSIONING—Frank Pace Jr., General Dynamics board chairman, is piped aboard Polaris-firing submarine Patrick Henry prior to commissioning ceremonies at Electric Boat Division.

High Speed Printers Developed At San Diego Sold to U.S. Army

SAN DIEGO — Stromberg-Carlson has sold 25 S-C 3000 High Speed Communications Printers to the U. S. Army Corps of Engineers.

Developed by engineers here last year, the electronic printers are designed to read out data from computers, telegraph, and radio communication links. When used as a communications printer, the S-C 3000 prints at 3,000 words per minute. As a computer printer, it operates either on-line or off-line in conjunction with various types of data processing systems.

The S-C 3000's printing process combines the Charactron shaped beam tube with the Haloid Xerox, Inc., dry, electrostatic, printing development. Printing is accomplished on inexpensive, untreated paper, without impact, eliminating troublesome high speed moving parts and liquid developers.

R. L. Knight Appointed Dynamics' Treasurer

NEW YORK — Richard L. Knight, manager of financial personnel and administrative service for General Electric Co., has been appointed a vice president and treasurer of General Dynamics Corporation.

A graduate of De Pauw University, he has been with General Electric for 25 years.

J. Y. McClure Elected National President Of Quality Society

J. Y. McClure, manager of quality control at Convair FW, has been elected national president of the American Society for Quality Control.

He was chosen to head the 12,000-member society at its annual conference in San Francisco.

McClure has been with Convair since 1935, when he went to work in San Diego. In 1944 he came to Fort Worth as chief inspector, and assumed his present position in 1951.

He was a charter member of the Dallas-Fort Worth ASQC chapter when it was formed nine years ago. He has held national positions as director, conference chairman, executive director, treasurer and vice president.

Navy Places Order For Airborne Radio

ROCHESTER — The U.S. Bureal of Naval Weapons has awarded a contract of approximately $4 million to Stromberg-Carlson for special airborne radio equipment.

The new equipment, which is completely transistorized, is especially designed for use in anti-submarine warfare.

Sons Place 'One, Two' In School Chemistry

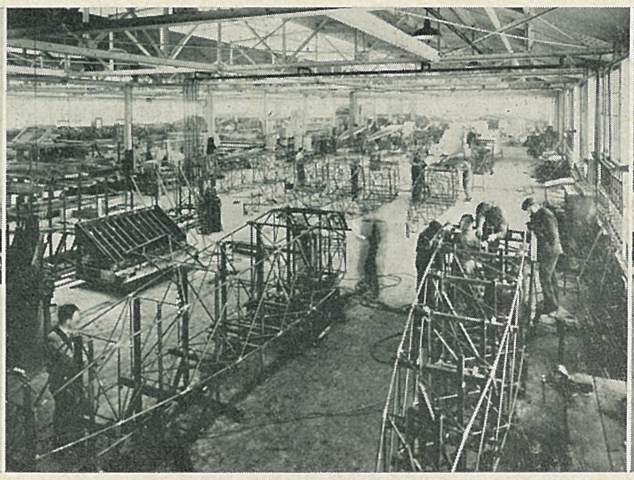
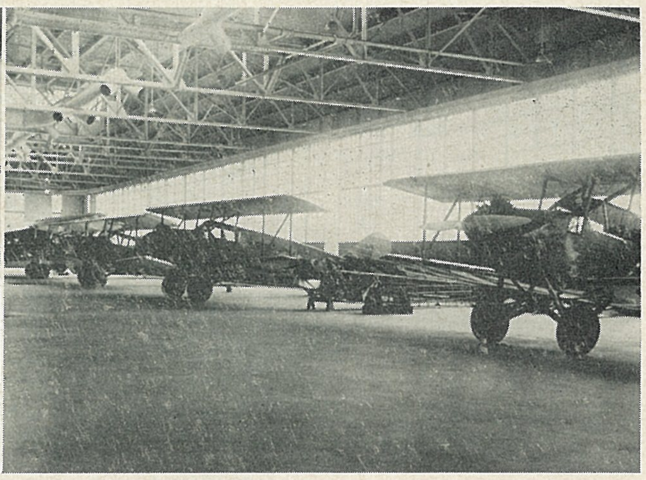
Two Convair sons recently placed high in the annual high school chemistry awards presented by the San Diego Section, American Chemical Society.

Stuart Galley, son of Astro's R. L. Galley of Dept. 321-5, took a first-place award. Robert Wolcott, son of C. G. Wolcott of Convair's General Office, was a second-place winner.



RELIABILITY PANEL—General Dynamics Reliability Panel held sixth quarterly meeting at Convair Pomona May 20-21. Some 30 members, representing all General Dynamics Divisions, attended. Pictured above are panel members at lunch in Convair Pomona cafeteria. A. C. McMaster, manager of quality control, and T. A. Vogel, chief of engineering reliability and standards, were hosts.



STINSON SCENE—At left is monoplane "Detroiter" 1927 or later, while in center is Stinson production line, about 1929. At right are biplane Detroiters. Planes were quite popular and sales steadily mounted between 1926 and 1929. Choice of models ranged from four-place Juniors to eight-place Wasps.

Indomitable

Vintage 1931 Stinson Flying Faithfully For Astro Trio

Not all old Stinson Aircraft products have found their way to "aviation graveyards." There is one, vintage 1931, still flying regularly for three Convair Astronautics men.

R. L. Myers, T. D. Crellin and R. S. Gechman, all of Dept. 322, bought the 1931 Stinson "Detroiter" from Leonard Round, also of Dept. 322.

They fly it out of Montgomery Field, towing advertising banners, hauling charter passengers or making pleasure trips.

"You name it and this old baby can do it," Myers said. "We can land almost anywhere with oversized wheels and landing gear. And we get off the runways quickly and surely under loaded or unloaded conditions."

Papers maintained on the plane show it was sold by Stinson to Commuter Air Services, Inc. of East Hartford, Conn., in 1931. It later was resold to the Valley Airways of Winchester, Pa., and in 1935 passed on to one Indalia Pomeroy Smith of Emporium, Pa.

Round bought it from the Smith estate in 1954 while living in Columbus, Ohio. He found the plane had been in regular service, except for a year's layoff.

The original 210 hp Lycoming engine has been replaced with a later 225 hp engine of the same make.

The underside of the wing contains the original fabrication, although other parts of the body have been refurbished. Except for a VHF radio, the interior is exactly as the plane rolled off the factory assembly line. The leather seats are still in good condition, except for a patch or two. The original wheels and controls remain on the plane.

"Speed we haven't got," Crellin added. "We do about 95 miles per hour airspeed and that's it."

There is a wind generator mounted outside which helps to keep the plane's 12-volt battery charged up. However, when the plane is down for some time Myers takes the battery out of the plane, installs it in his car, and brings it back up to full charge by driving it about!

Aircraft records show the airframe has a total of 1,195 hours.

Gas consumption, based on today's aircraft, is rather high. The engine gulps 12 to 13 gallons per hour. The fuel tank holds a total of 51 gallons.

"We get all kinds of attention on the ground and in the air," Gechman said.

"Faster planes will pass us by, then turn around and fly alongside for a closer look. We have even had military jet circle us a few times."

The Astro owners hope to restore the plane as completely as possible.

"We can get propeller and engine parts, usually, but airframe parts just aren't available," Myers added. "So we improvise."

Sr. Nuclear Engineer Will Teach at TCU

Dr. Otto H. Hill, senior nuclear engineer at Convair FW, has been named adjunct professor of physics at Texas Christian University. He will teach part-time during the next school year.

Dr. Hill holds his B. S., M. A. and Ph. D. degrees from the University of Texas. He is a consultant for National Research Council of National Academy of Sciences.

Convair Daughter Will Visit Greece

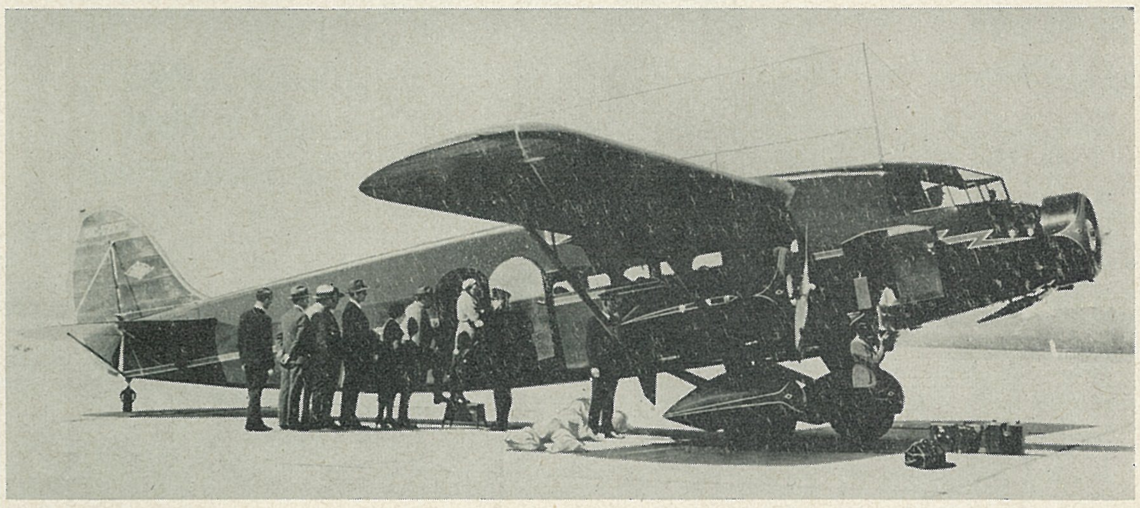
Mary Barrett, 17, daughter of R. E. Barrett, Convair SD tool planner, is third Convair son or daughter to win a trip to Europe this summer under the American Field Service program. (Convairiety, May 11.)

Mary, a junior at Mt. Miguel High School, will fly to Greece this week to spend a month with a family in Salonika. She will go on to Volos, seaport in northeast Greece, to visit a second family during August.

The Barretts were host family to an 18-year-old Argentinian girl a year ago under the same exchange program.



NOT YET MAN!—This 1931 Stinson five-placer still flies for trio of Astronautics owners. R. L. Myers, T. D. Crellin and R. S. Gechman bought it from Leonard Round. Plane flies around San Diego, often towing advertising banners.



TRIMOTOR—This was Stinson "Triumph," trimotored plane used by Century, Ludington and other airlines, starting about 1930.

'Detroiter' Biplane and Monoplane Sales Rose Steadily in Late 20s

(This is installment No. 36 in Convairiety's continuing Convair history. It concludes account of Stinson Airplane Corp.'s activities.)

Organization of the Stinson Airplane Syndicate in 1925 led to creation of the Stinson Aircraft Corp. May 2, 1926, with Edward A. Stinson as president, and William A. Mara as secretary. Other officers were James M. Evans, chairman; Harvey J. Campbell, vice president; and Richard Fitzgerald as treasurer. The company obtained a two-story plant at Northville, Mich., and went into production of biplane "Detroiters."

By 1927 Stinson brought out the first monoplane Detroiter. Sales increased steadily — from eight planes in 1926 to 34 in 1927 and 97 in 1928. By this time the company was offering a choice of models ranging from the four-place Stinson Junior to the eight-place Stinson Wasp.

Stinson had flown the pathfinder plane on Edsel Ford's first National Air Tour in 1925. Becoming a competitor himself, he placed second in the 1926 tour with a biplane Detroiter. (He carried seven passengers and 300 pounds of rock, to gain extra points in the competition.) This brought the company national notice and greater attention accrued the same summer after Eddie sold the plane to Edward Schlee and William Brock. They took it two-thirds of the way around the world, from Detroit to Europe and thence to Tokyo in a series of flights that the press chronicled day by day.

In 1928 the company raised additional capital by selling 23,500 shares of stock, and purchased a 10-acre factory site at Wayne, adjoining the Detroit-Wayne Municipal Airport. Construction started in January, 1929, in a factory providing 90,000 sq. ft. of floor space. It was ready for occupancy April 1.

The boom was nearing its climax and in August, 1929, Stinson and his associates sold a controlling interest to Cord Corp. (This was headed by one of its oldest customers, E. L. Cord, who had owned a six-place Detroiter since 1926.) The Corman Aircraft Co., a joint venture of Cord's and L. B. Manning's, was merged into Stinson. In 1930 the company began manufacture of the Stinson Trimotor airliner, adapted from an unsuccessful Corman design, and in 1931 Cord founded two airlines, Century and Century Pacific, which used Stinsons exclusively. Ludington Airlines also put Stinsons into service on its Washington-New York route.

The onset of the depression after 1929 slowed sales generally, but Cord met the situation head on by drastically reducing prices. The four-place Junior dropped from $11,500 to $5,995. In 1931 the company claimed that 75 per cent of all four-place cabin ships and 70 per cent of all airliners sold that year were Stinsons.

Eddie Stinson was fatally injured in a crash at Chicago Jan. 25, 1932. Just after a dusk takeoff he discovered his plane was running out of gas over Lake Michigan. (He had forgotten to check the fuel gauge.) He turned back in an effort to land on a golf course in Jackson Park, but his right wing tip struck a high flagpole and the machine crashed.

Three passengers were injured and Stinson, the most severely hurt, died a few hours later without regaining consciousness. Many of aviation's greats attended the funeral Jan. 29, in Detroit. Two World War I aces, Edward V. Rickenbacker and Reed Chambers, were among the pallbearers. A six-plane flyover from nearby Selfridge Field was led by Maj. James H. Doolittle.

Stinson was succeeded as president by Manning, who was also a Cord Corp. vice president (and in later years a director of Consolidated Vultee). He held office until November, 1934, when Aviation Manufacturing Corp., a subsidiary of the Aviation Corp., bought Cord's stock. In 1938, AMC liquidated the Michigan concern and Stinson Aircraft became one of its operating divisions.

Airliner sales diminished after the early 30s, and the Stinson company successfully exploited the four and five-place cabin market with the Reliant monoplane, derived from an earlier Junior. They entered the low-price field for the first time in 1939, introducing the three-place Model 105. In October of that year the parent Aviation Corp. completed negotiations with the City of Nashville, Tenn., for a site adjoining Berry Field, and shortly afterward AMC began construction of a factory building to which Stinson was moved (but only temporarily) early in 1940. On Oct. 22 Vultee Aircraft acquired Stinson as a division through a stock transfer arranged by their common parent, Avco. Plans were made to expand the Nashville property for military production and Stinson's commercial business was returned to Wayne.



"We're home most of the time . . . Next time give us a head start—I mean a phone call—as soon as you hit town."

SD Jr. Rifle Team Defeats Escondido

Convair SD's Junior Rifle Team May 21 defeated a junior squad from the Escondido Rifle Club firing in prone position competition.

Members of the first-place team, according to E. H. Horstman, commissioner, were Jim Yanetel, Mike Day, Sally Horstman and Len Stanley. On the second-place squad were Larry Hallowes, Bill Becker, Bob Renison, Bucky Kunkler.

Log Book Entries

Service Emblems

SAN DIEGO

Service emblems due during the period June 1 through June 15.

Thirty-year: Dept. 1-71, R. C. Sebold; Dept. 145, Leo Nowak; Dept. 218, W. H. Waite.

Twenty-year: Dept. 1-51, Martha C. Newbery; Dept. 6, W. S. Alcaraz, S. J. Geller, J. B. Hurt, S. W. Swenson, D. C. Worden; Dept. 7-40, J. H. Bradshaw, F. E. Maus; Dept. 14-8, J. J. Loperena.

Dept. 25-1, J. H. Tarvin; Dept. 31, Russell Morissette; Dept. 123-0, J. R. Morgan; Dept. 160, Joseph Ramirez; Dept. 171, J. G. Rogers; Dept. 180, Herman Newman.

Dept. 201, R. B. Grimes; Dept. 280, R. H. Brown; Dept. 400-1, Joseph Conta; Dept. 401, E. R. Boucher, C. E. Cardo, C. F. Priddy, C. L. Thompson, L. E. Ward.

Fifteen-year: Dept. 115, D. H. Wagnon; Dept. 116-0, Lenora W. Shilling; Dept. 140, R. C. Woker; Dept. 188-7, C. C. Murray Jr.; Dept. 197-1, Samuel Petcher; Dept. 266, V. W. Schraeder; Dept. 400-1, P. W. Schneider.

Ten-year: Dept. 4, Doris M. Parker; Dept. 6, A. H. McInnis, J. R. Picklesimer, R. M. Zeich; Dept. 7-40, Clella M. Beauregard, Leo Shaulis; Dept. 8, R. R. Breese, J. B. Henn; Dept. 14-1, D. E. Sundstrom; Dept. 15, W. C. Lewis, J. C. Orrell, D. L. Weaver.

Dept. 21-1, C. L. Moore, J. E. Pugh, C. E. Wyson; Dept. 25-9, F. F. Bryant, S. B. Qualiato, M. L. Wise; Dept. 31, S. L. Bettis, C. A. Gonzales; Dept. 44-2, W. J. Kelly Jr.; Dept. 91-0, Lydie R. Hewitt.

Dept. 137, A. D. Hare; Dept. 138, J. P. Antosy, Luetta T. Fike, Betty Mae Swanson; Dept. 146, J. J. Mihm Jr.; Dept. 188-5, C. F. O'Rourke; Dept. 192-5, V. L. Waitman; Dept. 197-5, W. E. Covington; Dept. 215, V. D. Gilson; Dept. 216, Lila H. Whitcomb.

Dept. 223, Ahurora E. Robson; Dept. 266-0, K. L. Thomson; Dept. 267, Calvin Skeens; Dept. 271, F. C. Hoskins; Dept. 288, Madilee B. Allred, J. F. Schaefer; Dept. 292, R. M. Alexander, Frances C. Patterson; Dept. 401, G. W. Davey, W. C. Engleman, Ruth C. Homan, Doris F. Spain, J. B. Willis.

Retirements

SAN DIEGO

BAILEY—Orland H., Dept. 93-2. Seniority date Aug 9, 1950, retirement effective May 23, 1960.

FRISBEE—Laurence D., Dept. 3-2. Seniority date Sept. 21, 1942, retirement effective May 20, 1960.

GARBRECHT—Herman W., Dept. 404-4. Seniority date April 27, 1955, retirement effective March 19, 1960.

KRAEMER—Joseph F., Dept. 192-1. Seniority date March 23, 1951, retirement effective May 27, 1960.

KRAEMER—Margaret W., Dept. 192-5. Seniority date June 1, 1951, retirement effective May 27, 1960.

MARTELL—Arthur C., Dept. 223. Seniority date Aug. 2, 1951, retirement effective May 23, 1960.

SLOCUM—Charles T., Dept. 400-6. Seniority date Jan. 29, 1952, retirement effective May 27, 1960.

SOUTHWORTH—Harry W., Dept. 25-9. Seniority date April 3, 1943, retirement effective May 20, 1960.

STEMM—Mabel S., Dept. 44. Seniority date April 14, 1954, retirement effective May 20, 1960.

WILLIAMS—Harold G., Dept. 102. Seniority date Jan. 9, 1941, retirement effective May 2, 1960.

Personals

SAN DIEGO

To my friends in tool inspection, may I express my gratitude for the beautiful floral tribute sent to Gulfport, Fla., for the funeral of my mother.

Esther M. Himmelsbach, Dept. 188

* * *

I wish to express sincere appreciation to all my Convair friends, especially those in Dept. 201, Plant 2, for their thoughtfulness and help at the death of my husband.

Flivia Nunez (Dept. 201) and family.

* * *

I wish to thank all Convair San Diego persons who were so kind, sympathetic and thoughtful at the death of my wife, Wanda Plagwicz (Dept. 93-0). I will always remain in their debt.

Matthew Plagwicz

Promotions

SAN DIEGO

Promotions to or within supervision effective May 23.

Dept. 4-0, Material: To value control supervisor, F. L. Packard.

Dept. 14-6, Traffic & Material Stores: To receiving and stores general foreman, R. H. Johnson.

Births

SAN DIEGO

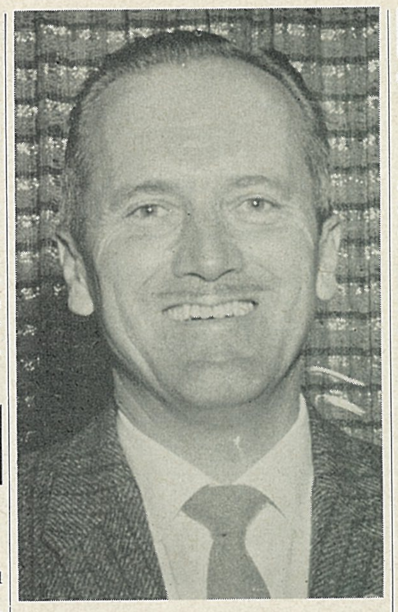
DIXON—Daughter, Susan, 6 lbs., 4 oz., born May 25 to Mr. and Mrs. John W. Dixon, Dept. 401-2.

Deaths

SAN DIEGO

CIARLETTA—Daniel Anthony Sr., Dept. 115. Died May 24. Survived by wife, Mary; two daughters, Mrs. Mary K. Butler, Mrs. Edna M. Dolan; two sons, Paul D. and Daniel Jr.; mother, three sisters; four brothers; nine grandchildren.

GEER—Paul E., Dept. 25. Died May 24. Survived by brother, Gerald W. Geer, Dept. 25-1.



SILVER ANNIVERSARY — Bernard J. Simons, senior project engineer at SD, completed 25 years Convair service last month.

Discounts Now For Hollywood, Foreign Films

Convair SD and Astro moviegoers will now be able to see both Hollywood and foreign films at discount prices at the Academy Theater, 3721 University Ave.

Each Friday evening, starting at 6:45 p.m., Convair folk will be able to attend Hollywood screenings for 25¢. Admission for children under 12 is 15¢.

In addition, discount prices are being offered on Tuesday evenings for a summertime festival of foreign films. Prices are 50¢ for adults and 25¢ for children under 12. Discounts can be obtained by showing Convair ID cards.

Following is Tuesday evening film schedule, first feature starts at 7 p.m., second at 8:30 p.m.

June 14—"He Who Must Die," filmed in Greece, English subtitles; and "Happy Is the Bride," filmed in England.

June 21—"The 8th Day of the Week," filmed in West Germany, English subtitles; and "Lovers of Paris," filmed in France, English subtitles.

June 28 — "Pather Panchali," filmed in India, English subtitles; and "The Mistress," filmed in Japan, English subtitles.

Following is Friday evening Hollywood film schedule during June:

June 10—"The Gazebo," Glenn Ford, Debbie Reynolds; "Night Passage," James Stewart, Audie Murphy.

June 17—"The Bramble Bush," Richard Burton, Barbara Rush; "Guns of the Timberland," Alan Ladd, Jeanne Crain.

June 24 — "Visit to a Small Planet," Jerry Lewis, Joan Blackman; "Some Like it Hot," Marilyn Monroe, Tony Curtis, Jack Lemon.

Toastmasters Club Plans Speech Class

Astronautics and San Diego personnel interested in a "Speechcraft Course" have been invited to take part in an eight-week program set up by the Mt. Helix Toastmasters Club, according to R. R. Dowers of Astro.

Beginning July 13, the course will be taught each Wednesday from 6:15 until 7 p.m. at the Country Kitchen, Lemon Grove. Cost is $5.

Dowers will supply details to those calling him at ext. 2255 at Astro or HI-4-0078 evenings.



"Too tight around the hips? Well let's try this model for size."

Boat Owners Asked to Volunteer To Help Underprivileged Children

Astronautics and SD Fishing and Boating Clubs will co-sponsor a fishing trip for underprivileged children June 25.

Volunteer boat owners will provide boats, gas, fishing tackle and companionship for some 130 children at Mission Bay.

Each child participating will receive a silver dollar, and the most successful fishermen will win sporting equipment, donated by the manufacturers.

Chairman Ed Bourgeois, Astro Dept. 280, said he hopes at least 50 boat owners will volunteer to assist with the event, which will be included on the calendar for this year's Harbor Days celebration.

Astro volunteers can contact Bourgeois at ext. 3008.

Volunteer boat owners at Convair SD are asked to contact W. T. Toon, ext. 411 or 1144, Plant 1, who is assisting E. R. Fink, general chairman. At both SD and Astro, volunteers are also needed to assume duties of flotilla captains.

Science Speakers Sought to Meet With Youth Groups

An effort is being made to locate Astronautics and San Diego Division employees interested in assisting in lectures, panel discussions, etc., with youths in the field of science.

Behind it are leaders of the San Diego Hall of Science and Industry.

Youngsters of all ages have repeatedly asked for speakers or men to answer scientific-type questions at small gatherings. Plans call for setting up such meetings in various locales, in San Diego and outlying areas.

Convair men or women interested in further information may contact Astro's Robert McPherson evenings at AT-4-5116 or Romauld Anthony of San Diego Plant 1 at ext. 2366.

BOB LEA ELECTED GOLF CLUB PREXY

Convair Golf Club members elected Bob Lea (SD Dept. 603) president for the 1960-61 term at a meeting May 13.

Other officers who will assume duties July 1 are H. E. Napier (Astro Dept. 325), first vice president; C. W. Maxfield (SD Dept. 120), second vice president: R. A. Tobias (Astro Dept. 541), treasurer; and C. N. Bagaloff (Astro Dept. 181), secretary.

Maxfield was club treasurer last year. Outgoing officers are H. V. Purnell (Astro Dept. 1-26), president; G. L. Dix (Astro Dept. 337), first vice president; Jud Kenney (Astro Dept. 695), second vice president; and H. M. Smith (Astro Dept. 181), secretary.

Improved Reading Course Objective

Convair people in San Diego may sign for new reading improvement classes to begin June 20 at Midway Adult High School, 3249 Fordham.

Classes in reading comprehension and interpretation will be held either Mondays and Wednesdays or Tuesdays and Thursdays from 6:30 to 9:30 p.m. Registration may be made by calling AC-3-1671.

Toastmasters' Display Wins

Convair Toastmasters Club at San Diego again walked off with top honors for its display at District 5 Spring Conference last month in House of Hospitality, Balboa Park.

Carrying out the theme of Toastmasters' role in all parts of the world, this year's exhibit was designed and arranged by Earl Erickson (SD-Dept. 6), chairman; Don O'Neill (SD-Dept. 7); Tom East (SD-Dept. 6); and Ray Sodomka (Astro-Dept. 402). The club display had been judged best at last year's conference.

The Convair group also received honorable mention as one of five outstanding clubs in District 5, which is comprised of clubs from San Diego and Imperial Counties.

Keith Blair, SD chief librarian, was candidate for district office. James Carr of Astro, president, and Ken Samples (SD-Dept. 6), educational vice president, were club delegates at business sessions. Other members active in conference preparations were Cy Campbell (Astro-Dept. 595) and Andy Gormish (SD-Dept. 6).

Interested Convair SD and Astro men are invited to attend Monday night meetings. For further information call D. Johnson, ext. 2320, SD Plant 1.



TOP HATTED — Pert foursome above will apear in "Hats Off" musical June 24-25 presented by Rhythm-Aires. Girls are Roberta Finical and Cecilia Vickers. Men are Robert Brisbin (Astro) and Stan Medford (Astro).

Convair Folk In 'Hats Off'

Convair Astronautics and San Diego persons will play prominent roles June 24-25 when the Rhythm-Aire Players of Pacific Beach present "Hats Off."

The production, slated for Pacific Women's Clubhouse, 1721 Hornblend St., Pacific Beach, will include some of the top numbers written by Rodgers and Hammerstein, Cole Porter and Irving Berlin.

In the male lead is Robert Brisbin of Astro's Dept. 192-7, who also directs and stages the production. Stan Medford of Astro's Dept. 250-1, Gloria Bodie of SD's Dept. 91-0, and Glenda Davis, wife of Dalton Davis of SD's Dept. 400, also have top roles. Others from both operating divisions will also take part.

In addition to their professional engagements, the Rhythm-Aires have appeared in several local benefit productions. Tickets will be available at the door.

Trip to Mexico City, Acapulco Offered Interested SD Persons

Reservations for a 14-day trip to Mexico City and Acapulco, planned and arranged for students in CRA-sponsored Spanish classes, are now being accepted from all interested Convair SD persons.

Travelers will fly from Tijuana either Aug. 20 or 21, return from Mexico City Sept. 4 or 5. Round-trip fare is $134. Flight costs, both ways, on a special junket from Mexico City to Acapulco will be $25.

Living expenses while in Mexico will probably not exceed $4 per day per person.

During the next 11 weeks the complete trip will be simulated during Spanish classes which are held during the summer on Thursday evenings in the Balboa Park Conference Bldg., Room 5.

Regular classroom work for both beginning and intermediate students is held between 7 and 8:15 p.m., the trip will be reviewed between 8:30 and 9:30, according to Jim Hardison (Dept. 15), instructor.

Interested Convair SD folk are asked to attend the latter period, or both sessions if they desire.

All facets of the trip, from the first day to the last, will be covered. Included are such things as obtaining a tourist visa, public health requirements, flight plan, etc.

Upon arrival in Mexico City, travelers will have their choice of either boarding in the homes of Spanish people as "students," or making regular hotel accommodations.

During the first four days in Mexico City, special side trips are planned to the national university, pyramids, floating gardens, and other points of interest.

En route to Acapulco, trips are slated to Cuernavaca and Taxco, the "silver city." In Acapulco, reservations have been obtained for the Hotel de Los Pensiones. Students will visit the regular Acapulco tourist attractions during the three-day stay.

Upon return to Mexico City, travelers will journey to Puebla, and stay at one of the largest flower and fruit ranches in the world. Other side trips, too numerous to mention, have also been arranged.

So far, more than 20 have tentatively made trip reservations. Up to 50 or 60 can be accommodated. Those interested are welcome to "sit in" during the Thursday evening classes. Next class will be held tomorrow (June 9).



PAY OFF—Lee Burch (Dept. 6), seated left, recently received novice amateur radio license (WV6KBO) as result of noon code classes conducted by CRA Ham Club at Convair Pomona. Seated right is Frank Schoble (W8LMI), class instructor. Standing, left to right: William A. Koch (WV6JPJ), Charles A. Calkins (K6PMS), Tom De Ward (WV6KKZ) and Arthur Woodruff (WV6OZY). All are in Dept. 6, Convair Pomona. (See story on page 8.)

Judo Discontinued For Summer Months

Judo and bodybuilding classes sponsored by CRA Thursday evenings in the Pacific Hwy. clubhouse will be discontinued during the summer, Pete Beyrer of the CRA office said.

During the warmer weather turnouts are too small to justify the classes, he said. Instruction will resume again in the fall.

CRA Sports & Recreation Convairiety

3,500 View Horse Show Entries; SD Riders Set Special Meeting

Bob Hauseur, entered in the 13-17 age bracket, swept high point honors both days at Convair SD Riding Club's first Horse Show of the year last month at Valley Lane Farms, Mission Valley.

C. L. Pogorel, co-commissioner, reports that over 3,500 attended the two-day show. They saw 225 entries vying for honors in English, Western, Hunter's and Jumper's Divisions.

Luke Barbour, show manager, expressed appreciation to all Convair SD folk who gave freely of their time and effort to help make the show a success.

Many members of Convair families won show honors, but space limitation allows only mention of first-place winners. They were Bob Hauseur, five first place awards; Fay Latson, four; Carol Hauseur, three; Carolyn Waller, Mary Crane, Pam Conant, two each.

Other event winners were Judy Friebel, Norm McDonnell, Don Waller, Evelyn Taylor, Fred McNabb, Danny Daniels, Mrs. O. B. Davey, William Rowan, Sally Tyson, Mary Jane Richert, Dana Rullo, Sally Fleet, Susan Fleet, Sandra Fleet, and Bobby Rowan.

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All Riding Club members and SD folk interested in joining the group are asked to attend a special organizational meeting next Wednesday (June 15) at 7:30 p.m. at the CRA Clubhouse, Gillespie Field.

Schedules and dates will be discussed for trail rides, fun shows, breakfast rides, and campouts. Membership cards will be available at the meeting.

CRA Calendar

(Convair SD Recreation Association has some 40 activities in operation. For information on SD sports, call CRA headquarters, ext. 1245, Plant 1.)

* * *

ARCHERY CLUB—Shoot Sunday (June 12), 10 a.m., Singing Hills Range.

BADMINTON — Open play for families Tuesday evenings at 7:30 p.m. in Balboa Park Federal Bldg.

CAMERA CLUB—Post-Photorama party Monday (June 13), 7:30 p.m., Photo Arts Bldg., Balboa Park.

COIN CLUB — Meeting Tuesday (June 21), 7:30 p.m., Hearing Aid Society Bldg., 3843 Herbert St.

FISHING CLUB — Volunteer boat owners needed for Junior Fishing Derby June 25. Contact W. T. Toon, ext. 411 or 1144, Plant 1. Club meeting Tuesday (June 21), 7:30 p.m., CRA Clubhouse, Gillespie Field.

GARDEN CLUB—Meeting tonight (June 8), 7:30 p.m., Floral Association Bldg., Balboa Park.

ICE SKATING—Convair night every Thursday; discount rates between 6:30 and 8 p.m. at Iceland, 6055 Lake Murray Blvd.

MOVIES—Reduced-price movies Tuesday and Friday evenings at Academy Theater, 3721 University Ave.

RADIO CLUB — Meeting tomorrow (June 9), 7:30 p.m., Harbor Drive headquarters.

RIDING CLUB—Meeting Wednesday (June 15), 7:30 p.m., CRA Clubhouse, Gillespie Field.

ROAD RUNNERS — Trailer outing June 11-12-13 to Guatay Gardens on Hwy. 80. Contact Harry Rush, CY-5-8213.

ROLLER SKATING — Next skate night Monday (June 20), Skateland, Front and G Sts., 6:30 to 9:30 p.m. Free tickets at employee services, both plants, and from departmental representatives.

SPANISH CLASS — Reservations open for 14-day trip to Mexico City and Acapulco. Information available at Thursday evenings classes, 8:30 p.m., Room 5, Balboa Park Conference Bldg.

WATER SKI CLUB — Weekend skiing, 9 a.m. to 3 p.m., Saturdays and Sundays, east shore, Tierra del Fuego, Mission Bay.

Coin Couple Guests At June 21 Meeting

Leonel and Anna Merle Panosh, nationally known couple in coin collecting circles, will share the spotlight at the June 21 meeting of the Convair SD Coin Club.

Panosh is a past president of the American Numismatic Association. His wife will commentate and show slides of her outstanding collection of "orders and decorations," an exhibit which has won three national as well as many state awards.

Interested Convair SD folk are invited to attend the meeting which starts at 7:30 p.m. in the Hearing Aid Society Bldg., 3843 Herbert St. Refreshments, a coin auction and door prizes will round out the program.

Garden Club Slates Orchid Show Films

Garden Club members from Convair SD will view films of the San Diego and Anaheim Orchid Shows at a meeting tonight (June 8) at 7:30 p.m. in the Floral Association Bldg., Balboa Park.

Films will be shown by Everett Henderson, club president. Preliminary plans will be laid for the CRA's annual Dahlia Show scheduled this year for Aug. 14.

DEPT. 139 CONDUCTS WASHER TOURNAMENT

Top-ranked doubles team in a washer pitching tourney held recently in Dept. 139 at Convair SD was Don Skelton (Dept. 139) and John Zittell (Dept. 188). They were scheduled to meet first and second-place finishers of a singles tourney for the championship.





BEST BOWMEN—Seven archers from Convair SD May 14-15 took honors in state sectional shoot and participated May 28-29 at state shoot in Los Angeles. Team members (from left) are: Roy Dill, Eddie McDonald, Danny Osborn, Al Phipps, John Platt, Harry Ross and Bob Lorch.

Seven Convair SD Archers Qualify for State Shoots

No less than seven Convair SD archers during the past month qualified to represent the Southern Border Archery Association at sectional and state shoots.

They were Al Phipps, John Platt, Bob Lorch, Harry Ross, Roy Dill, Danny Osborn and Eddie McDonald.

Only 15 archers from the SBAA qualified for the sectional and state shoots. The SD group was one of the largest entered in the two top state tournaments.

In the sectional competition May 14-15 the top SD performers were Phipps, who took second in barebow Class A; Lorch, second Class A free style; and Osborn, ranked fourth in the junior division.

At the state shoot in Los Angeles May 28-29 SD archers failed to notch any of the top positions. Best showings were made by Dill, who placed sixth in the championship class, and Osborn, who came in sixth in the junior bracket. Phipps placed eighth in Class A.

More than 350 of California's best archers vied for honors in the latter tournament.

The Convair SD Archery Club is presently planning to form a team to compete with other archery squads. According to Al Phipps, club spokesman, the team would also stage shooting exhibitions.

Seven club archers will be selected for the squad, including five men, one woman and one junior. Additional information can be obtained by calling Phipps, CY-5-8194.

Next SD club shoot is scheduled for Sunday (June 12) starting at 10 a.m. at the Singing Hills Range. Both ½ hunter's and ½ field rounds are slated.

Memberships Expire For Riders in June

Convair SD Riding Club members are reminded that in order to qualify for discount privileges, membership cards must be brought up to date on or before June 15.

Marc Beresford, CRA co-commissioner, said stables offering discount privileges for SD riders have been notified of the card expiration date. Memberships can be renewed at employee services offices, Plants 1 and 2.

Weekend Activities Of Water Ski Club On East Bay Shore

Weekend activities of the Convair SD Water Ski Club are now scheduled for the east shore of Tierra del Fuego in Mission Bay, T. E. Mathews, commissioner, reports.

Dredging in the bay has progressed far enough along to warrant moving into the less crowded area for safety reasons, Mathews said.

Weekend skiing is held both Saturday and Sunday, usually between 9 a.m. and 3 p.m., with special events sometimes scheduled in the evenings.

Parking near the new Ski Club location is available on the east side of Tierra del Fuego, east of the Ingraham St. bridges.

Interested SD skiers are invited to participate in a tourney June 11 at the San Diego Speedboat Club. Entry fee is $3. Registrations will be taken at 8 a.m. Saturday at the Speedboat Club.

Road Runners Plan Journey This Weekend

A new name, new officers and outings scheduled in June and July were decided by members of Convair SD's travel trailer group last month.

Official name for the organization is now the Convair Road Runners. Interested SD folk who own small travel trailers are invited to join the Road Runners and participate in their monthly campouts and meetings.

Elected to office were Harold Perkins, president; Pete Peterson, vice president; Ralph East, treasurer; and Jessica Cooper, secretary.

Next outing is scheduled for this coming weekend, June 11-12-13, according to Harry Rush, wagon master. Destination will be the Guatay Gardens on Hwy. 80, approximately 45 miles east of San Diego. Planned activities include a potluck supper Saturday afternoon, and campfire and singing in the evening. Facilities for swimming, horseshoes, volleyball, and softball are near at hand.

For additional information on this event contact Rush, CY-5-8213.

In July, a "sportsman's rally" is scheduled at Lake Morena on 16, 17, and 18.

Regular club meetings are held on the third Thursday of the month at 7:30 p.m. in the Gillespie Field CRA Clubhouse.

J. B. CARROLL TAKES BOTH PISTOL EVENTS

J. B. Carroll (Dept. 3-1) led Convair SD Pistol Club marksmen at a match May 22, winning both .22 Police Course and Short National events.

In the police competition he scored 293 points, followed by Jim Halfacre (Dept. 180) with 291. W. G. Walker (Dept. 6) accounted for 279 points to win the expert class, edging runner-up, Bill Dittmann (Dept. 6), by three points.

Top sharpshooter was R. E. Kezar (Dept. 6) with 275 points, trailed by Ralph Benson (Mrs. Benson is in Dept. 250) with 261.

Carroll's winning score in the Short National was 279. Ranked second, with 261 points, was G. M. McFarland (Dept. 6). In third was Joe Williamson (Dept. 401-5) who tallied 260.

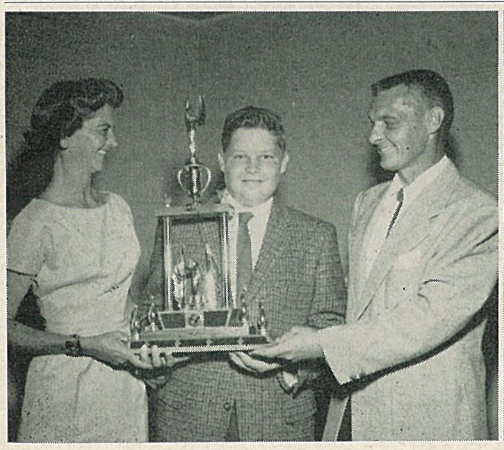
70 Wins Tournament For Convair SD Son

A Convair SD son recently was named boys' division winner of the Pepsi-Cola junior-senior high school golf tournament at Mission Valley Country Club.

He is Skip Sinclair, son of Frank D. Sinclair (Dept. 1-65). A senior at La Jolla High School, the Convair youth blazed around the front nine with three birdies and one eagle, finished with a total of 70.

DISCOUNT OFFERED FOR AUTO RACES

Discount tickets, worth 75¢, for auto races Saturday evenings in the Balboa Stadium are available at SD employee services, Plant 1 and 2.

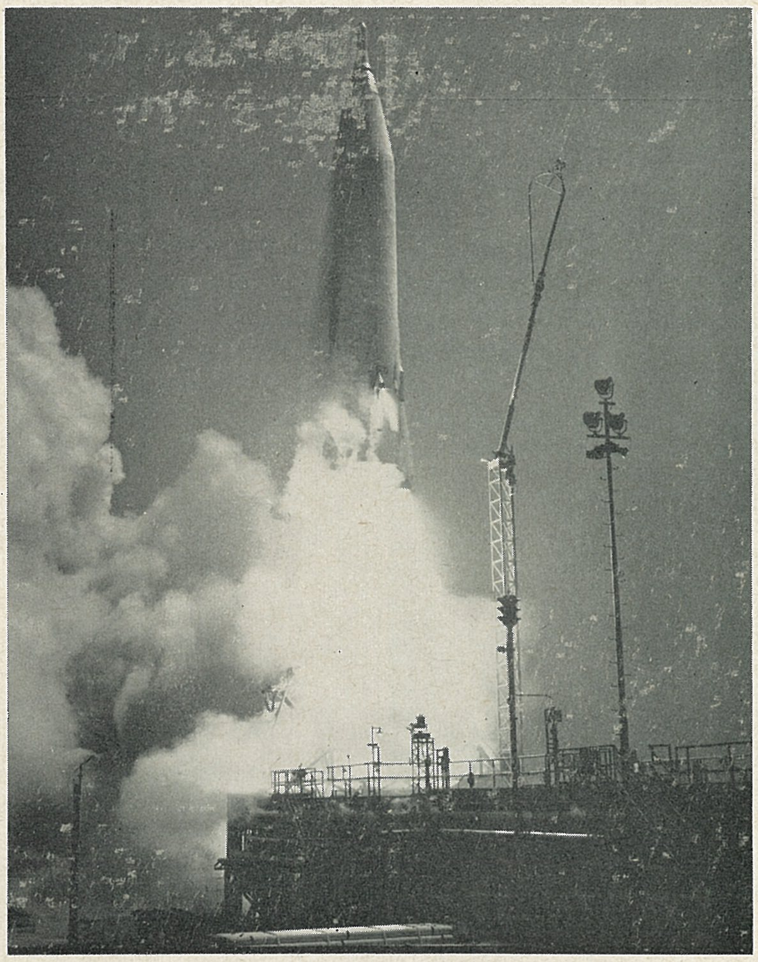








KEG AWARDS—League and plant championship winners from Convair SD were honored May 28 at annual bowling awards banquet. In photo at left is 13-year-old Barry Gray, plant singles handicap winner, flanked by parents, B. B. and Marge Gray. In next photo are plant mixed handicap doubles winners, Katie Law and Don Lauder. In third shot is winning team in Clairemont Jet League. Members (from left): T. Laiuppa, R. Gilfillan, Jean Gilfillan, J. Henningsgaard, and R. Costaneda. At right is winning scratch doubles team, Willis Carson and Mike Brooks. Some openings still remain for summer leagues now forming at SD.



OFF FOR RECORD—Atlas 56-D slowly clears launch pad at Astro's Complex 12 at Air Force Missile Test Center on way to 9,000-mile flight down Atlantic Missile Range. Flight was longest on record for surface-to-surface missile. Longest previous Atlas flight was 6,325 miles.



LONG, LONG SHOT—Astronautics force, members of Complex 12 work group, was responsible for longest Atlas flight to date. Flight was longest on record, exceeding 7,760-mile Russian missile launch recently. Impact was in Indian Ocean off southern tip of Africa.



CONDUCTOR—William D. Taylor, right, was test conductor for record 9,000-mile flight of Atlas. He is shown in blockhouse during countdown with Leroy H. Gross and Travis Maloy, chief test conductor for Astro at AFMTC. It was Taylor's first launching.

Pomona Hams Set Up Network For All-Convair Conversations

Two nets have now been established between the Convair Pomona Ham Club and hams at other Convair operating divisions, CRA Commissioner Frank Merritt announced.

The club station, WA6IWP, maintains a schedule each noon with the Convair San Diego Club, operating on 40 meter band using lower sideband of 7.220 Mc. San Diego operates under the FCC authorized call of K6DBS.

An all-Convair net also meets at 8 p.m. each Thursday on 20 meters using the upper sideband of 14.295 Mc. At the present, Fort Worth, San Diego and Pomona hams are checking into the net, Merritt said.

"The three clubs are concentrating on making contacts with personnel of other General Dynamics facilities so that the net can be expanded to a world-wide basis," he added.

Employees who would like to communicate with persons from other divisions can do so by routing a prepared message through Merritt, K6YCX. Amateur operators are also invited to use the club facilities at the small clubhouse any night of the week.

'Smart' Woodpecker To Get Air Hammer

A "Work Smarter, Not Harder" poster in the FW plant, depicting a "smart" woodpecker using a brace and bit, instead of his beak, to bore a hole, drew a protest recently from Robert E. Norwood, Dept. 6-6, evidently a naturalist.

"The prime purpose of a woodpecker is not to make holes but to vibrate a part of the tree, causing insects to seek the surface where the woodpecker promptly eats them," Norwood informed suggestion section's M. J. Scott. "A brace and bit would add little to his menu."

Scott is considering equipping his poster woodpecker with an air hammer!

F-102s Assigned To Spain Base

Convair jet interceptors now are based in Spain with activation of an F-102 squadron near Madrid.

Six of the Convair-built all-weather jets have arrived at Torrejon Air Base to go into service with the 497th Fighter-Interceptor Squadron.

Convair team at the Spanish base is R. G. Weir, W. H. Parks, SD field service representatives; J. W. Hudson, ground support; V. W. Burkett, logistics support rep.

Third German-based squadron was to receive its first F-102As last week. The 526th FIS at Ramstein Air Base near Landstuhl is being transitioned to the Convair planes. G. S. Mathews is Convair SD field service representative there.

Other squadrons in Germany now equipped with F-102As are 525th FIS at Bitburg Air Base and 496th FIS at Hahn Air Base.

AF 43rd Bomb Wing Joins Hall of Fame

The 43rd Bomb Wing has been added to SAC's Flying Safety Hall of Fame for rounding out one year of flying without an accident.

Hall of Fame is a roster of more than 50 SAC units which have flown accident-free for more than one year. The roster is published in "Combat Crew," SAC publication.

Formerly located at Davis-Monthan AFB in Arizona, the 43rd was transferred to Carswell AFB March 15 as the first unit to be equipped with operational B-58 Hustlers.

Accountants Chapter Names Buse Prexy

Charles H. Buse, industrial accounting, has been elected president of the Fort Worth Chapter, National Association of Accountants.

Other Convair FW personnel elected to offices in the association included: Ray Harwell, director; Don E. Ransom, director of competition; and Bill V. Frey, secretary.

Highlight of the May meeting was presentation of the play, "Delegation Be Hanged," by members of the Convair Management Club.

Canada Audiences Hear Atlas Talks

Abe Hurlich, Astronautics materials research supervisor (Dept. 595-2), is new chairman of San Diego Chapter, American Society for Metals.

Hurlich was elected recently, succeeding Stan R. Carpenter of Convair SD.

Hurlich recently returned from a trip to Victoria, Edmonton and Calgary, Canada, where he presented a series of talks on "Materials and Fabrication of the Atlas Missile" before American Society for Metals groups there.

First Aid

Here's Few Tips on What to Do In Case of Off-the-Job Mishaps

The American Red Cross, which has been teaching first aid for 50 years, recently issued a series of first aid tips, primarily aimed at off-the-job mishaps.

Following are excerpts from some of the more important:

Contact with poisonous plants, such as poison ivy, oak and sumach, can lead to unpleasant results. Learn to recognize the plants. If you have been poisoned, the skin will become inflamed, a



few small blisters will appear and there will be itching. As soon after exposure as possible, wash the affected area in soap and water, then sponge with rubbing alcohol. After this cleansing, apply calamine lotion. If discomfort is not relieved, consult a doctor.

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A person bitten by a poisonous snake should stop muscular activity at once. Tie a band above the bite, if it is on an arm or leg, tightly enough to prevent the return flow of blood into the surface vessels but not enough to shut off the deep-lying blood vessels. Sterilize a knife blade with



a match flame and cut into the venom point. Avoid cutting muscles and nerves lying just beneath the skin. Apply suction with mouth or suction cup. Rinse the fluid from the mouth as it might have an ill effect on infected gums.

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Prevention or care of shock may save an accident victim's life. The same first aid measures apply in each case. Keep the patient lying down, with head



and chest elevated if there are head or chest injuries. Put a blanket under the victim but cover him only sparingly. The objective is to prevent large losses of body heat, not to raise the body's temperature. Give plain tepid water to allay thirst, but only if the victim is conscious. Do not give stimulants.

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Accidents in the home annually cause nearly 30 per cent of all accidental deaths. Hold down home mishaps by making your home safer. Keep steps, railings, floors and carpets in good repair. Keep steps and hallways clear. Provide a storage place for children's toys, and encourage the children to keep them there when not in use. Use a sturdy ladder or step stool to reach high places, not a chair. Provide adequate light, especially on stairways.



Make sure rugs are anchored and wipe up spilled grease or water immediately.

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"Hurry" is the key word in giving care to poison victims. It is important to dilute poison by giving fluids and in some cases to make the patient vomit. Caustic poisons, such as lye and strong acids, injure the lining of the food passages; the injurious action diminishes when fluids dilute the poison. Give milk when



it is available as it protects the digestive tract and slows absorption of poison. If milk is not handy, give water. Induce vomiting as rapidly as possible to expel the poison. A universal antidote is one part strong tea, one part milk of magnesia, and two parts crumbled burnt toast.

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First aid care for burns has as its chief objectives treatment for shock, relief of pain and prevention of contamination. Shock is a major hazard, serious commonly when the burn involves more than 10 per cent of he body's



surface and sometimes when the area is smaller. The patient with a serious burn should be transported to a hospital without delay. Exclusion of air from a burn by application of a thick dressing relieves pain and if the dressing is sterile prevents further contamination. Do not apply ointments to a burned surface.

Drowning a Summer Threat to Children

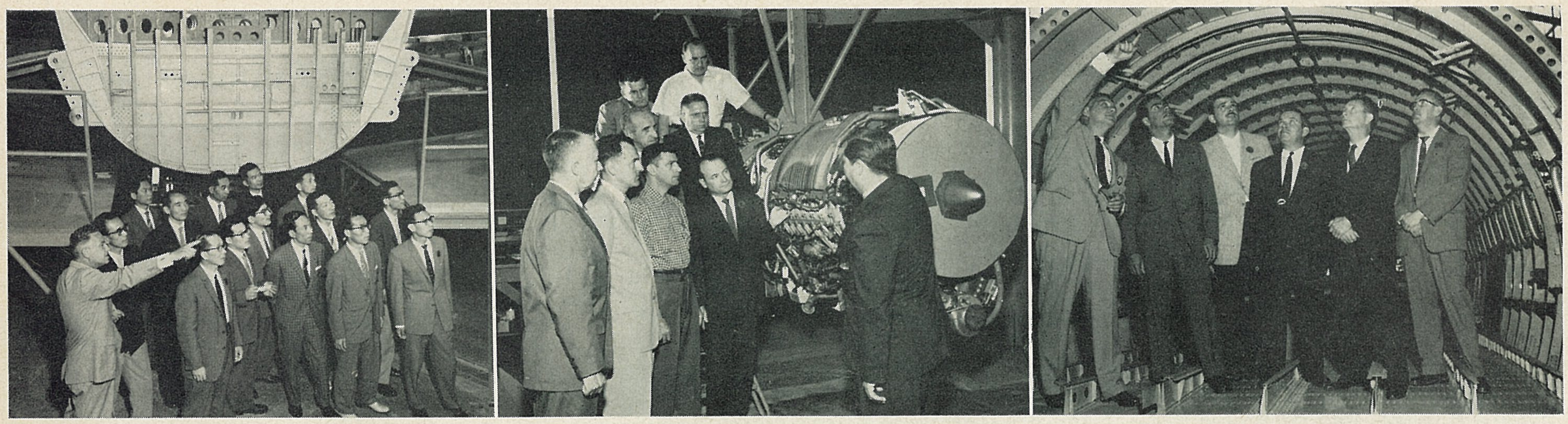
A major threat to school children this summer is drowning, National Safety Council reports.

Fred R. Temple, Convair FW chief safety engineer, suggests the following precautions may prevent tragedy:

Swim only near guarded beaches; wait awhile after eating before swimming; don't swim when heated or tired; and don't show off, duck others, or cry "wolf."

"Also," Temple adds, "don't forget to use caution in boating or walking along the bank of a river."

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STREAM OF VISITORS—Jet transport construction at SD draws many visitors these days. At left above, Japan Air Lines key officials tour 880 line with P. S. Smith, field service instructor. Center: FAA pilots and flight engineers are here for flight training. From left, front row, A. H. Bostelman, R. S. Cubr, J. W. Lamar, L. A. Smythe; second row, Carl Braunstein, H. B. Mitchell; top row, L. H. Mallernee, H. B. Strawn. Explaining aft-fan engine is L. J. Rice, flight engineer-instructor. Right-hand photo: FAA engineers at SD for jet transport familiarization course inspect interior of 880 fuselage. From left: P. S. Smith, Dept. 15-4; Charles S. Asmar, J. L. Patras, G. W. Wells, R. O. Howard, W. E. Garlock. Courses for airline customers, FAA personnel are conducted in Bldg. 4 by production flight and customer service.

C-V CONVAIR

Published every other Wednesday.

GD GENERAL DYNAMICS

Convair Division of General Dynamics Corporation.

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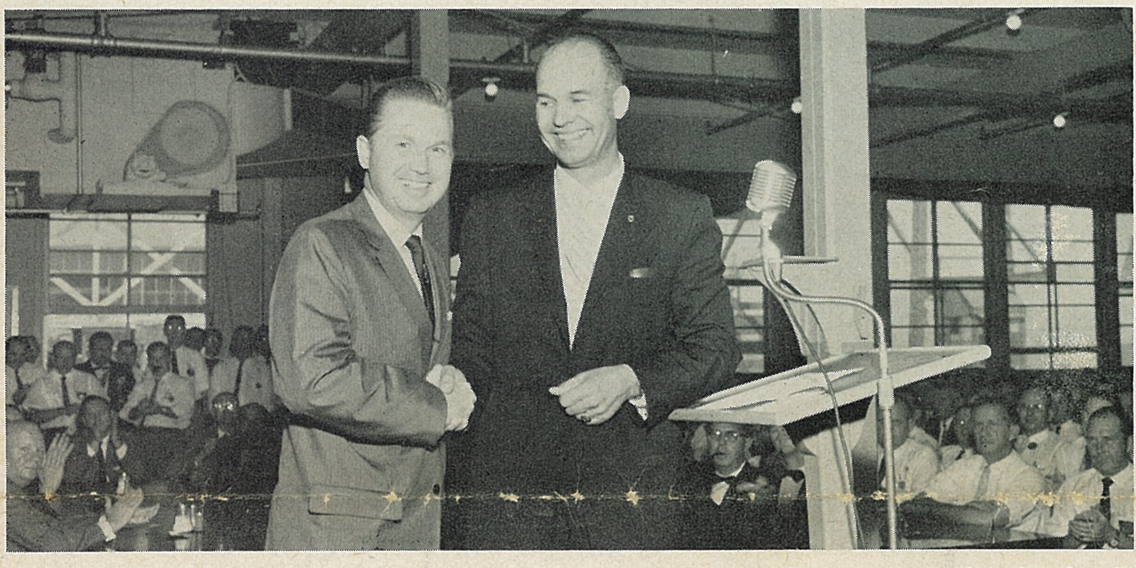
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SAN DIEGO, POMONA, ANTELOPE VALLEY, VANDENBERG AFB, CALIF. AFMTC, CAPE CANAVERAL, FLA., FORT WORTH, TEX.



WELCOME ABOARD—This was scene June 8 at special meeting of supervisors in Plant 1 cafeteria at SD as B. F. Coggan, left, introduced Robert C. Loomis, new manager of SD Division. Coggan June 15 became Convair vice president—special projects. Although Loomis has been at Pomona Division since 1952, he is widely remembered at San Diego where between 1948 and 1952 he headed flight test and inspection and later directed B-36 recycling.

Delta Increases Orders For 880s, Passengers Happy

Delta Air Lines has ordered an additional three Convair 880 jet transports. These are on top of the initial order of ten, delivery of which will be completed by this fall.

C. E. Woolman, president of Delta, and Convair President J. V. Naish confirmed the new order early this month.

The three 880s are scheduled for delivery to Atlanta, Ga., headquarters in August and September of next year. The airline already has taken delivery on three of the airliners, with the first one, "Delta Queen," delivered in February.

Jet 880s are now in service over Delta's Eastern network flying non-stop trips between New York and Atlanta, New York and Houston, and New York and New Orleans. Inaugural flights were made May 15.

As additional aircraft are added to Delta's fleet, service will be expanded to include flights between Houston and Chicago, and New Orleans and Chicago.

Meanwhile, passengers continue to be pleased with 880 lux-

(Continued on Page 2)

Price Will Increase For 880s and 600s

Convair 880s and 600s will cost more after the first of July with an increase in prices.

Customers will be paying from 4 to 4½ per cent more on a basis of present prices, in round figures, of $4 million for the 880 and $4½ million for the 600.

A company statement said the increase was necessitated by rising labor and material costs.

Customer Service, Production Flight Conduct Training

Training courses on Convair jet transports are being conducted currently at Convair San Diego by two SD functions for representatives of two airlines and two groups of Federal Aviation Agency personnel gathered from all points of the U. S.

Eight FAA pilots and flight engineers are in the midst of a month's production flight training course under supervision of P. H. Selby, flight training supervisor. The five-week program, which opened June 6, will see FAA flight crews receiving four weeks of classroom instruction and supervised operation in the cockpit procedures trainer in Bldg. 4, Plant 1.

Climaxing the course will be a week of actual flying time in Convair 880s.

FAA pilots are H. B. Strawn, based at San Francisco; R. S. Cubr, Washington, D. C.; L. H. Mallernee, La Guardia Field, New York City; H. B. Mitchell, Kansas City. FAA flight engineers are A. H. Bostelman, Idlewild airport, New York City; L. A. Smythe, Boston; J. W. Lamar, Kansas City; Carl Braunstein, San Francisco.

Production flight instructors, said L. W. Hughes, training coordinator, are: John B. Van Houten, airplane general, emergency equipment, flight controls; L. J. Rice, power plant, fuel system, fire detection and extinguishing; L. A. Scrivener, electrical, electronics, instruments, autopilot; L. Knudsen, hydraulic, air conditioning and pressurization, adverse weather

(Continued on Page 2)

Metal Mockups Moved To New Home in Bldg. 4

Metal mockups of Convair SD jet transports are now "at home" in Bldg. 4 at Convair SD Plant 1 after a six-year residence in the north end of Bldg. 3.

Now in final stages of reassembly after the shift, life-sized mockups of Convair 880 and 600, used for proving of all harnesses and tubing, are settling down in a new location north of main "Hollywood and Vine" intersection, Bldg. 4.

A familiar sight at the north end of Bldg. 3 during the Convair-Liner 440 program and first years of 880 and 600 development, the two huge mockups were moved out early this month to make room for expanding 600 factory production.

Their present location is not entirely new to Convair mockups since first ones conceived for Convair Model 340s and T-29s were located in Bldg. 4 several years ago. Before that, production planes were used in layout of wiring and plumbing cables, explained M. B. Fuhrmann, mockup foreman.

Fuhrmann's crew of 125 mockup men is now hard at work converting the two metal mockups to latest configurations for Convair jet transport customers. The 880 basic mockup has been changed to the Model 22-3 version of the follow-on 880 jet. It

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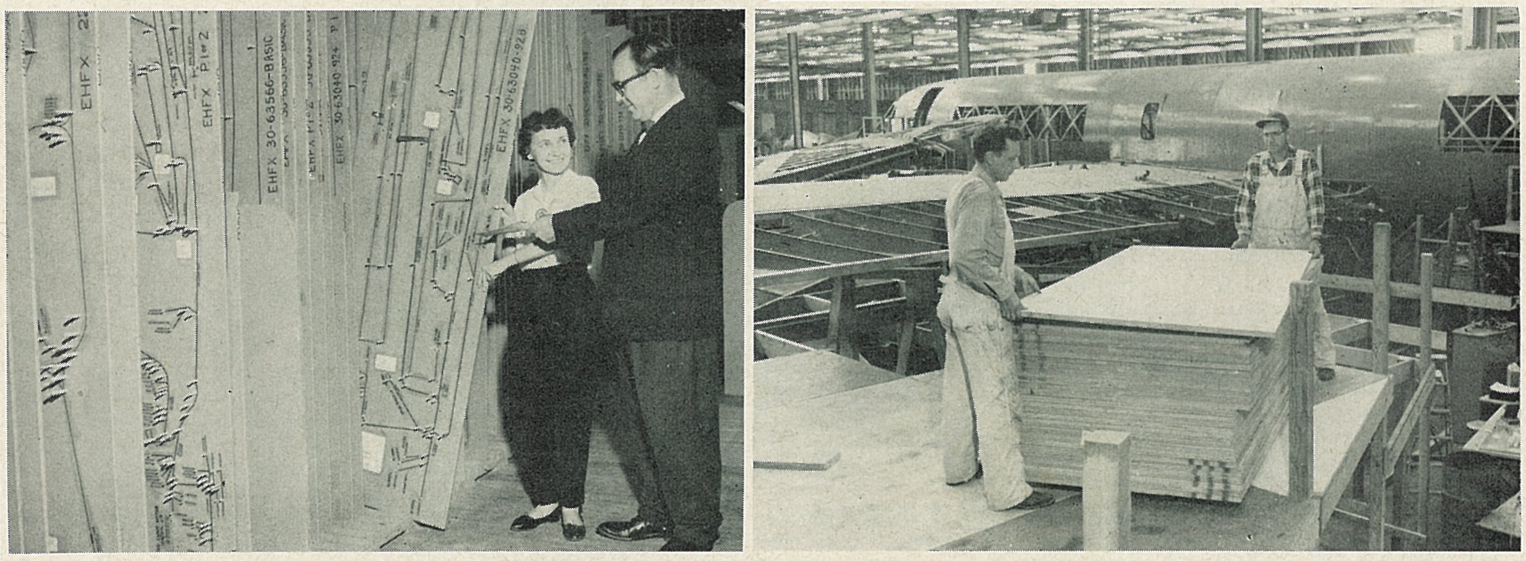
Enjoy Seeing Padre Baseball? Then Enter Draw for Tickets

Entry deadline for another CRA-sponsored San Diego Padres ticket drawing at Convair SD is 3:30 p.m. this Friday (June 24).

Each drawing winner will receive two tickets, good for Westgate Park games with Sacramento and Tacoma between July 1 and 7.

To enter, SD baseball fans should submit name, clock number, shift, department number, location and telephone extension. One entry per person is allowed.

Boxes are located in employee services, both plants: at Rose Canyon, in the office of Virginia Cannon, ext. 2125: Fordham St., office of Bessie Cooper, ext. 100: and at the ramp, in the office of Ralph Sachs, Bldg. 37, ext. 425.



NEW SETTLERS—New sights in Bldg. 4 at Convair SD Plant 1 are large blue metal mockups being reassembled on ground floor after move from Bldg. 3. Above right, A. B. Jerke and R. F. Bonner of plant engineering build new work stands. At left, R. V. Brunner, foreman of Plant 1 electric bench, helps Cecile Guilmette select 600 harness board from rack in new Bldg. 4 mezzanine location of Dept. 116. Other departments shifted to Bldg. 4 are fuselage belt frames and tubing and cable.





GRADUATION — Annual apprenticeship completion banquet June 2 at U. S. Grant Hotel climaxed four-year program for 31 Convair San Diego apprentices. Seated at two Convair tables were SD supervision, apprenticeship committee members, graduating apprentices and wives. Certificates went to all Convair apprentices finishing training by this summer.

31 Convair Apprentices at SD Complete 8,000-Hour Training

Thirty-one Convair SD apprentices were among more than 250 San Diego apprentices receiving state and SD Junior College certificates June 2 in the U. S. Grant Hotel.

Marking completion of a four-year training program, the 19th annual apprenticeship completion banquet was sponsored by San Diego General Apprenticeship Committee, Division of Apprenticeship Standards, San Diego City Schools, and Federal Bureau of Apprenticeship and Training.

Convair SD apprentices honored have satisfied the minimum requirement of 576 hours classroom work at SD Junior College over the last four years and, by August of this year, all will have completed the required 8,000-hour rotated job training at Convair SD, explained H. W. Rubottom, chief of SD educational services.

Charles F. Hanna, chief of Division of Apprenticeship Standards, presented state certificates and school certificates were given by Walter L. Thatcher, director of SD Junior College.

L. McEntee (Dept. 25) was honored with a certificate of meritorious service for five years' membership on one of the two Convair Joint-Apprenticeship Committees.

Since the program was begun at Convair SD 18 years ago, approximately 175 apprentices have completed the training, said Rubottom. He went on to point out that at least 60 per cent of those beginning with the company as apprentices advanced well above the journeyman level within five years. Sixty-three remain in Convair SD's continuing program.

New Convair SD journeymen and their respective fields are: aircraft and engine, A. J. Manzano; aircraft construction mechanics, D. J. Allen, E. R. Lee; aircraft electricians, W. A. Alcaraz, D. E. Cornwall, C. F. Snyder; aircraft electronics technicians, R. K. Casey, R. M. Diaz, W. C. Eastin, Bill J. Garrett, T. S. Harris, K. C. Hartranft, J. L. Heming, K. W. Jeffreys, J. F. Lutnick, O. J. Neller, N. R. Niement, J. D. Shackelford, R. M. Trent, G. V. Trivoli, R. R. Varney, R. L. Weir, M. W. Zink; aircraft machinist, C. L. Johns; industrial electricians, A. N. Carreon, R. J. Ekhaml, J. A. Tate; plaster pattern maker, R. A. Barone; tool and die makers and jig builders, L. R. Christiansen, W. L. Marker, L. R. Rutherford.







LONG SERVICE—Ninety years of Convair service is represented by this trio: R. C. Sebold, vice president-engineering (upper); Leo Nowak, SD Dept. 145; W. H. Waite, Dept. 218. Each received recognition this month on 30th anniversary.

SD Wife Named 'Citizen of Year'

A Convair San Diego wife has topped all Federated Junior club women in the state of California for the time and effort she has devoted to community and club activities.

Named "Citizen of the Year" in a statewide contest sponsored by Federated Women's Clubs Junior Membership, Mrs. Ruthanne Bingham, wife of J. G. Bingham, cost analyst in SD material services, recently received the award from Alan Cranston, state comptroller.

The Binghams have two small sons, Mark, 7, and John, 3.

★ Convairiety ★

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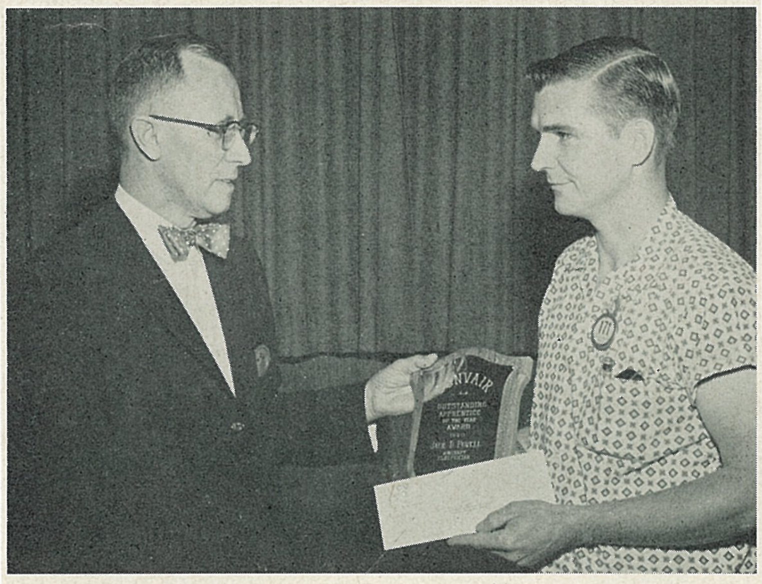
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FW Editorial Offices, Col. 73C, ext. 2961. Mailing address: Convairiety, Convair, Fort Worth, Texas. Telephone PErshing 8-7311. Staff: Dave Lewis, news editor; Susan Bagby, Mary Beck.

Pomona Editorial Offices, Room 106-D, Bldg. 1, ext. 6226/5279, mail zone 3-3. Staff: James Combs Jr., news editor; Dorothy Keller.



TOP APPRENTICE—Jack D. Powell receives plaque and cash award from Conrad Kunze, Convair SD assistant manager-operations (left), as outstanding apprentice for 1960 at Convair SD.

Convair Girls Hold Key Roles In Convention

Members of Convair women's Delta Toastmistress group had top responsibilities in arrangements for the 13th annual Southwest Regional Toastmistress conference and speech contest this month at Hotel del Coronado.

Fran Leland (AF office at Convair), immediate past president of Council #7, was coordinator of the conference which drew 700 Toastmistresses from Nevada, Arizona, and California to San Diego area June 10-12. Theme of the three-day conclave was "Cultivating Competence with Character."

Marge West (Dept. 6-70), Delta president, gave the Saturday luncheon speech on "Slurvian," common misuse of the English language. Tsuneko (Tuni) Davies of Dept. 15-5, as guest representative of the Convair club, gave the invocation at the Sunday morning Friendship breakfast.

Joyce Simon (Dept. 1-71) was singled out for special commendation and gift of a miniature gavel for her efficient chairmanship of the transportation committee whose members met all delegates at train, bus depots and airport. Other Delta members serving on hostess or transportation committees were Martha Woodberry (Dept. 3-2), Sunny Cooper (AF office), Lee Betts (wife of Les Betts, Dept. 4), Marge West (Dept. 6), Roxanna Miller (Dept. 1-65), and Juanita Wilson (Dept. 190).

B. F. Coggan, now Convair vice president-special projects, served as a judge at the Saturday evening speech contest.

Delta Toastmistresses will choose new officers at their June 28 meeting at Calabrese's Restaurant following last week's nominations.

Walt Mooney Wins SD Modeler Event

Walt Mooney (Dept. 6) placed first in the clipper cargo event of the PAA-LOAD Aeromodeler meet held this month.

Mooney's model, with an engine of only .020 cubic inch displacement, carried 13.5 oz. on three, 40-second flights.

Jack Powell is No. 1 Apprentice in 1960

Jack D. Powell, apprentice aircraft electrician at Convair SD, has been named outstanding apprentice for 1960.

He was chosen on a basis of work proficiency, scholarship, attitude and attendance on the job and at school, leadership potential, and extracurricular activities. In addition to an individual plaque, he received a cash award of $50. Powell's name will join that of George V. Trivoli, winner of the first annual award given last year, on a perpetual plaque kept in SD educational services headquarters, said H. W. Rubottom, SD chief of educational services.

Runners-up who received certificates of recognition, were Ronald E. Beitz, electronics apprentice, and Lawrence A. Broekemeier, tool and die apprentice.

Metal Mockups In New Home

(Continued from Page 1)

will be changed to conform with specifications for Japan Air Lines' 880-Ms starting the first of August, said Fuhrmann. The 600 mockup for American Airlines has been completed and changes are now under way to SAS-Swissair 600 configuration, to be done by August.

Other changes will follow for Convair's customers, with REAL version next on the list this fall.

Supporting mockup operations, 51 tooling and planning people in the same department (Dept. 180) also are located in the Bldg. 4 location. They tool and plan tubing and electrical harnesses developed on the metal mockups before release for production.

* * *

Other Convair SD functions settled in new Bldg. 4 locations are electric bench (Dept. 116), now on the north mezzanine, and Dept. 136, fuselage belt frames, on the ground floor. About 110 people, under Robert V. Brunner, foreman, are getting used to their new surroundings as they make electrical harnesses for Convair jet transports.

Tubing and cable (Dept. 117) is due to make the move into Bldg. 4 this month.

Customer Service, Production Flight Conduct Training

(Continued from Page 1)

system; A. P. Wilson, production flight pilot, performance and operating techniques.

In customer service training courses are five FAA engineers at San Diego for a two-week jet transport familiarization course, said L. J. Bordelon, chief of transport service. They are G. W. Wells, Kansas City; W. E. Garlock, New York City; Charles S. Asmar, Washington, D. C.; and J. L. Patras, Fort Worth; and R. O. Howard, based at Burbank, Calif., as air carrier safety inspector.

A familiarization training course on the 880 is under way for key personnel from Northeast Airlines, Boston, Mass., with W. W. Mies, assistant vice president-production, heading this week's group. Accompanying him are H. E. Orlando, manager of engineering; N. Wentworth, manager of technical services based at Miami airport. Northeast men at Convair for last week's three-day session were J. V. Auskelis, chief inspector; O. B. Grenquist, manager of production control; S. J. Ross, manager of line service; G. Sutton, manager of technical services, Idlewild airport.

Fourteen Japan Air Lines' supervisory personnel are now at San Diego from Tokyo, Japan, attending a planners' program on JAL version of the modified 880.

M. Nakao, chief of JAL flight coordination department, heads up the group of A. Chiba, T. Shinano, M. Honma, K. Shirane, T. Masuda, A. Takahama, T. Shimizu, K. Morohashi, E. Fukuyama, Y. Ishihara, G. Okada, T. Ichikawa, and K. Suzuki, JAL chief representative at Los Angeles.

Three JAL 880-Ms are due for delivery next summer for service on the airline's Southeast Asia routes and its southern route to Europe.

Coordinating the customer service training courses is Don Maxion, regional field service representative.

Passengers Happy With 880 Service

(Continued from Page 1)

ury and speed.

"General conversation of deplaning passengers is nothing short of enthusiastic," G. F. Arner, Convair SD rep at New Orleans during early days of service, reported.

Passengers on a New Orleans to New York flight were whisked across country even faster than they bargained for June 11, according to Harry Addis, rep at Houston. The 880 clipped 16 minutes off scheduled time, making the flight in 2 hours and 9 minutes, when the schedule called for 2 hours and 25 minutes.

According to a Delta Air Lines news bulletin, top ground speed during the flight was 670 mph.

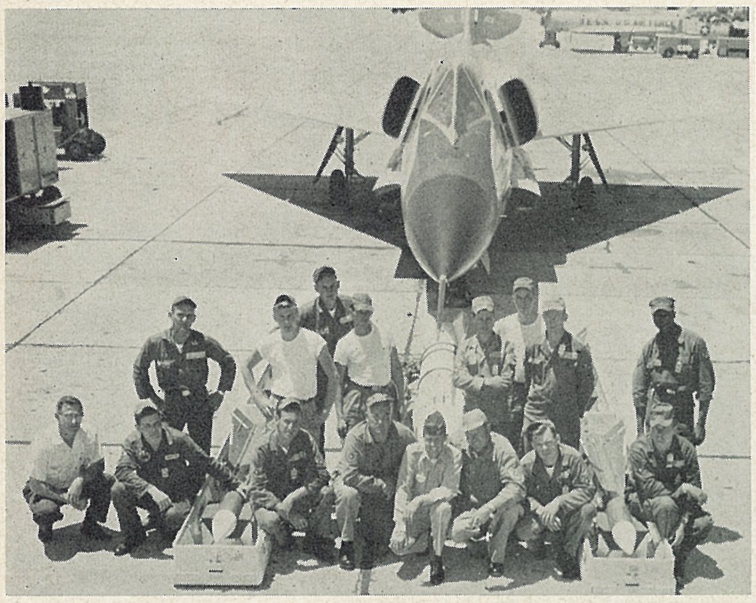
Toastmasters Hold Microphone Class

Twenty Convair Toastmasters tried their hand at the "mike" at a microphone training session June 6 in All-Saints Episcopal Parish Hall.

Chairman of the meeting was James Carr of Astro, club president. Fred Stevens served as toastmaster; Ken Samples, topic master; and Earl Erickson, general evaluator. All three are in Dept. 6 at San Diego.

Herm Sumner of Astro and Earl Patric (Dept. 6) tied for best speaker award. Best performance honors went to Cy Campbell of Astro. Larry Lawson (Dept. 188 at SD) gave the best table topic and Harry Morgan (Dept. 6) won award for biggest boner.

Anyone interested in attending the June 27 meeting is urged to call Erickson, ext. 1032, Plant 1.



MISSILE LOADERS—Armament crew responsible for checking and loading of F-106 rockets and missiles during firing tests at Tyndall AFB, Fla., are (front row) from left: G. E. Rahm, Convair SD logistic support rep; A/2c Garrison, A/1c Wilsusen, T/Sgt. LaRue, Captain Swigart, M/Sgt. Cash, A/1c Cole, A/2c Winkley. In back row from left are: A/2c Kahle, A/2c Bergstrom, A/2c McNeal, A/2c Welch, A/1c Smith, A/2c Dorman, A/2c Lake, A/2c Deas.

F-106s in Final Stages Of Armament Testing

Twelve Convair-built F-106s are in final stages of a two-year armament testing program as firings over the Gulf of Mexico missile range swing into their last weeks.

Due to return to home base at McGuire AFB, N. J., the first part of next month, Convair interceptors of the 539th Fighter-Interceptor Squadron have chalked up an impressive score of accuracy as they pinpoint a variety of targets across the range, report Convair SD representatives assigned to the task force.

Firings during the Category II/III program have been made on such targets as the Del Mar tow target and the miniature jet-propelled Ryan Firebee, as well as QF-80s, radio controlled from the ground through a complex system of radar and telemetering. MB-1 missiles are to be fired on manned targets before the end of testing. However, in these tests, say SD reps, missiles are set to miss the target, but intricate scorings are recorded.

"Preliminary review of information indicates that the F-106 is the most reliable and accurate weapon system ever devised for use in interception and destruction of an invading enemy force," writes G. E. Rahm, Convair SD logistic support representative now at Tyndall AFB, base of present operations.

All phases of the F-106 weapon system have undergone extensive testing during the program. Logistic support, ground support equipment, rockets, missiles, communications systems, radar and guidance systems, and navigational aid systems, as well as the aircraft itself, have been thoroughly checked.

Called the largest Joint Test Force ever assembled on a single project, participants include representatives and engineers from Convair, Hughes Aircraft, Philco Electronic Communications, Inc., Kearfott, Pratt & Whitney Aviation. Military contingent is headed by Col. W. C. Clark of ADC as Joint Test Force director and Maj. D. M. Sorlie of ARDC. Other military commands taking part are San Antonio AMA, Wright Air Development Division, Air Defense Command, Air Research and Development Command through AF Flight Test Center at Edwards AFB, Calif., and 539th FIS at McGuire AFB.

J. L. Carton of Convair SD Model 8 project office heads a Convair support team of Rahm, Chuck Alston, Neil Bodwell, Duke Mancuso, Don Finlay, and Jerry Marshall. Dave Perkins is Convair SD field service representative assigned to the project.

Five of the 12 jet interceptors are maintained by a hand-picked team of Convair SD aircraft maintenance specialists supervised by E. A. Fish of Convair Palmdale facility.

National Guard In Four States Will Get 102s

Five National Guard squadrons in continental United States and Hawaii will receive Convair F-102As during the next year, according to an announcement by Air National Guard Headquarters, Washington, D. C.

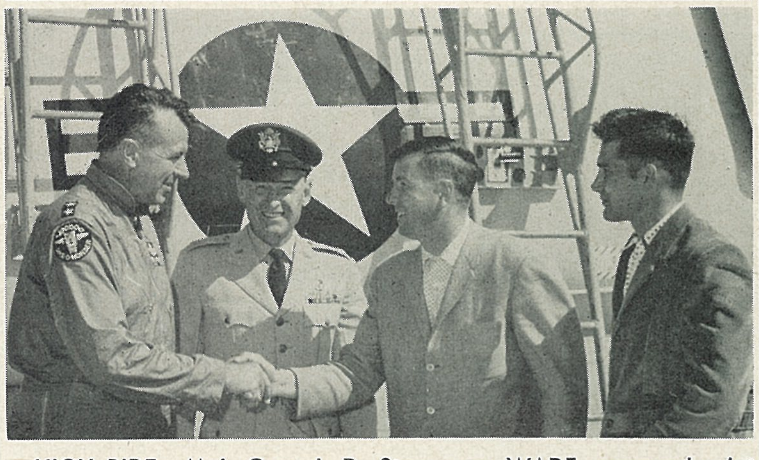
F-102As are slated to go to Guard squadrons in Louisiana, Florida, Texas, and Hawaii before July, 1961, said R. E. Sommers, acting chief of interceptor service at Convair SD, and Hal Wilson, field service assistant supervisor, who were at the Pentagon recently consulting with Air National Guard officials. While there, they finalized requirements for Convair field service engineers who will be supporting the new F-102 units in Convair's first effort with the National Guard. They also pledged Convair's utmost support as new squadrons receive the all-weather jet interceptors.

Five F-102As are now at Kelly Air Base, San Antonio, Texas, as forerunners of the complement to go to the 182nd Fighter-Interceptor Squadron of Texas Air National Guard. Maj. Paul Straw is commanding officer of the 182nd FIS which is converting to F-102s from F-86Ls, North American Aviation fighters which will go into a modification program for updating.

J. L. Gallant, SD field service representative, was at the Texas base to welcome first of the squadron's Convair-built planes. F. W. Lightfoot, SD logistic support representative, will join Gallant by the first of August and a Convair flight control specialist will be assigned to Kelly AB within the next two or three months.

Convair representatives will assist in operation of aircraft and in maintenance functions, with responsibility for setting up a training program for the newly-activated squadron.

A second F-102 squadron will be activated in Texas some time during the year. One each will go to the other three states.



HIGH RIDE—Maj. Gen. J. D. Stevenson, WADF commander (at far left), is greeted by Lt. Col. R. L. Tweedie, and Convair SD field service reps C. W. Stevens and John Tezak after first F-106B ride at Castle AFB, Calif.



1,000-HOUR PLANE—First F-102 to chalk up 1,000 hours flying time is claimed by 323rd Fighter-Interceptor Squadron, Ernest Harmon AFB, Newfoundland. Crew lined up after hitting mark are, left to right, Capt. F. J. O'Brien, pilot; S/Sgt. T. W. Brittain, crew chief; R. J. Helm, Convair SD rep; T/Sgt. J. L. Achenbach, flight chief; Capt. J. F. Daye, 4731st Air Defense Group commander.

'This Is Your Life' TV Show Stars Mother Of Convair Lensman

Mrs. Bea Knight, mother of Roy Knight, Convair SD photographer assigned to Palmdale facility, was star figure in "This Is Your Life" television program early this month.

Breeder of famous dogs, Mrs. Knight was surprised by Ralph Edwards, emcee, as he led her out of the audience at the June 1 show to hear her life story.

Mrs. Knight, who lives in a log cabin near Drain, Ore., is breeder and owner of 80 St. Bernard dogs, many of them champions. Two of her prize animals have become famous on television—Neil on the "Topper" show and Hector on "This Is Alice."



HOW HIGH?—Pint-sized spectator peers up into innards of F-106 during Armed Forces Day open house at Shaw AFB, S.C. Interested youngster is three-year-old son of Maj. William Manahan of Shaw's 4411th Combat Crew Training Group.

Manned Military Aircraft Future Theme of IAS Meet

The future of manned military aircraft will be the theme of the 1960 national aviation meeting of the Institute of Aeronautical Sciences to be held in San Diego Aug. 1 to 3.



W. H. Mollering

More than 2,000 IAS members and top government and industry officials are expected to attend, according to William H. Mollering, (SD Dept. 6-37), general chairman.

Military speakers will discuss the continued need for manned aircraft for tactical, strategic and logistic purposes. Government scientists will present the state-of-the-art capabilities as determined from research work. Industry speakers will explain designs of aircraft to meet military requirements.

Papers will be presented on propulsion, aerodynamics, structures, and guidance, and on VTOL, STOL, subsonic craft.

Mollering said most sessions will be secret and held in the U. S. Marine Corps Recruit Depot, San Diego.

Other Convair SD men helping with the national meeting arrangements are J. W. Hopkins (Dept. 6), technical program chairman; S. G. Haas (Dept. 6), C. L. Blake (Dept. 1-71), program coordinators; C. W. Greaves (Dept. 2), publicity; and L. W. Fitzgerald (Dept. 1-41), arrangements chairman.

A chairman has been appointed for each day of the meeting. They are William Littlewood, vice president-equipment research, American Airlines (Aug. 1); Dr. Hugh L. Dryden, deputy administrator of National Aeronautics and Space Administration (Aug. 2); and Frank W. Fink, vice president-engineering, Ryan Aeronautical Co. (Aug. 3).

Low Altitude Ejection Capability Improved

Successful seat-man separator tests on the B-58 ejection seat have "vastly improved" the low-altitude escape capability of the Hustler.

R. M. Kemmerer, Convair FW senior design engineer, reports "successful ejections both at maximum speed and 120 knots" in a series of seat-man separator tests at Hurricane Mesa, Utah.

Tests were conducted with instrumented dummies in the B-58 fuselage at the Hurricane Supersonic Research Site.

"Success of these sled tests indicate we are perhaps reaching ideal conditions for escape in the B-58 aircraft," Kemmerer said.

(Tests are being conducted concurrently on the B-58 escape capsule, being manufactured by Stanley Aviation in conjunction with Convair FW.)

Ultimate proof of the ejection seat will come at Convair FW later this year, when a dummy will be fired from a still position on the ground—at zero speed and altitude.

If all goes well in this test, the seat and dummy will rise about 100 feet in the air; a separation strap will automatically separate pilot from the seat; and a parachute will pop open to float the "pilot" safely to earth.

Before the static firing at Fort Worth, however, other tests will be run at Hurricane Mesa, ejecting dummies at 100, then 75 knots.

Two instrument dummies were strapped in the B-58 fuselage in the first maximum-speed run down the track at Hurricane Mesa. As planned, the third-station dummy was ejected at 120 knots, during acceleration to maximum speed. The seat-man separation and parachute-opening took place as scheduled.

"This dummy was in such good condition after landing, we could have used him immediately in another test," Kemmerer said.

First-station occupant was successfully ejected at maximum speed, and again the separation and parachute worked perfectly. The dummy received "no appreciable damage" during ejection.

"Separation of seat and man—in both cases—took place at the height of the trajectory," Kemmerer said.

Kemmerer says that key to success of the B-58 ejection seat—which could enhance the safety of pilots during critical takeoffs and landings—is the rocket catapult ejector and the new "separator strap," which "pushes the seat away from the man" during ejection. It was developed by Convair FW engineers.

Working on the tests at Hurricane Mesa are Convair FW personnel from furnishing escape systems design and test sections, fluid dynamics and instrumentation sections, and some members of the test laboratory and HSRS personnel.

Tex. Welding Society Elects Convair Men

J. C. Collins, Dept. 23-1, and R. E. Key, Dept. 6-4, were recently voted first vice chairman and secretary-treasurer, respectively, of the North Texas Section of the American Welding Society.

D. M. Hoban of Dept. 23-1 was appointed publicity vice chairman for the society.

July Fourth Holiday To Fall on Monday

Another three-day weekend is in the offing for Convair employees everywhere when they celebrate July 4 holiday.

Work at all plants will be suspended Monday (July 4) except for necessary maintenance and security personnel, giving most Convair people Saturday, Sunday, and Monday for holiday weekend plans. All operations will resume at regular hours Tuesday (July 5).





PLANE PIONEERS — Among first women in Consolidated shop back in 1941 were Frances Ciprian, top, now at Astro, and Ruby Dean, now at Plant 2. Note "loving cups."

Pioneers

Five of First 'Shop Women' Recollect '41

Five pioneers who joined Consolidated Aircraft in the first contingent of women ever hired by the company for shop work are at their old stands, 19 years later.

Convair SD Plant 1 claims three of the stalwarts. Plant 2 has one and the fifth continued her pioneering by transferring to Astronautics in 1955 as one of the first women in its factory.

Edna Fodor, Stella Smoot and Alma Emmons, all Dept. 129 at SD, operate power sewing machines in fabrication, reporting to the same boss who greeted them Sept. 15, 1941, D. G. Cobb, assistant foreman in SD fabrics, sound proofing and rubber cutting in Bldg. 3, Plant 1.

Ruby Marier Dean is now in Plant 2 electric bench and Frances Campbell Ciprian, also once in Cobb's upholstery group, subsequently went to Consairway, was in electrical harness work and currently is in Astro's Dept. 772.

Of the 40 women hired on the 1941 date, 23 remained at the end of a year to receive Consolidated "thank yous," small loving cups.



19 YEARS LATER—It's daily "reunion" in SD Dept. 129 for Alma Emmons, D. G. Cobb, Stella Smoot (standing) and Edna Fodor (seated). They recall first day on job, nearly 19 years ago.

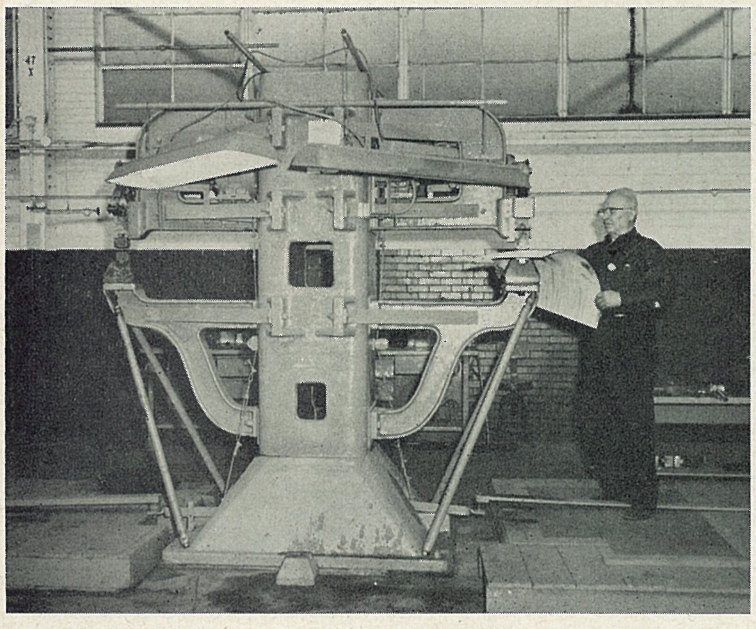
Machine, Left Behind by Consolidated in '35, Continues to Produce For Bell Despite Age

In similar fashion to Old Man River, who "keeps rolling along," a machine left behind by Consolidated Aircraft when they moved from Buffalo in 1935, keeps "bumping" along.

The machine is a Pettingell Hammer. Though it was installed prior to 1935, its present owner, Bell Aircraft Corp., still finds it adequate for some jobs.

Why it was left behind, instead of being brought to San Diego when Consolidated moved, is somewhat of a mystery. Oldtimers guess either it was left behind as "junk," or was considered too bulky to justify the moving expense.

Similar machines are in use in the "bump" shop at Convair SD Plant 1, but they are of heavier construction and can be used for a wider range of materials. They're also a little newer.



GOING STRONG—Still in use by Bell Aircraft Corp. is Pettingell Hammer which was left behind by Consolidated Vultee when they moved to San Diego from Buffalo in 1935. Machine is still forming parts for its present owner.



QUIET MOMENT—Drowsy after nap are Bock and Schnapps, six-week-old Dachshunds that have been added to household of Astro's W. B. Weickersheimmer. Question is how do they tell 'em apart?

Fourth Grader's Whirling Baton Wins Honors in State Contests

She's only slightly larger than her baton, but fourth-grader Theresa Lowrance manages it so well that she has won two trophies in statewide baton twirling competition.

The nine-year-old daughter of C. E. Lowrance, Dept. 81 at Convair FW, has only been twirling in contests since last October. Already she has to her credit several local medals and first place wins in the Juvenile Division of the State Contest and in the Open National Contest.

Following in the footsteps of her older brother, who was drum major for six years—at Stripling Junior High School and Arlington Heights High School—Theresa began working with her baton when she was two.

In line with her twirling, Theresa is fast becoming an accomplished acrobat. She has won several talent contests, and last summer Theresa appeared as a featured acrobatic dancer in the role of one of the Siamese children in Casa Manana's production of "The King and I."



Theresa Lowrance, 9, demonstrates her baton technique.

Field Service Reps Go to KC

In a reshuffle of Convair SD field service representatives supporting the 880 jet transport, five SD men are currently assigned to Trans World Airlines headquarters at Kansas City, Mo.

Glen Arner, Al Koster and John Nowak have joined Henry Bohmbach and Ed Buckman at the Kansas City location for the time being, said Mel Clause, assistant supervisor of field service. Nowak will be there for a short time, and Buckman is expected to go to TWA location at Los Angeles by the first of the month. Bohmbach, first rep to be assigned to support of TWA 880s, has been at Kansas City since last September.

In other shifts, James Sauer, assigned to the Denver area since last fall, is returning to San Diego to take part in the 880-660 training program. Ed Griffin is due to report to the Convair SD plant this week following three years at Sao Paulo, Brazil, with the Convair-Liner program.

FW Daughter Earns Degree With Honors

Linda Nevitt, daughter of Convair FW's Charles Nevitt, Dept. 3-3, received her diploma recently from Texas Christian University, cum laude.

Watching her on the commencement stage was her father, who is a TCU faculty member, teaching in the evening college. Linda's degree is in elementary education and she will teach this fall at Richland Hills Elementary School.

In His 'Leisure' Time Writer Earns Degree

Louie Henderson, engineering writer in Dept. 15 at Convair SD, deserved even more than the degree he received from San Diego State College this month—he should have received a special "A" for effort.

Since 1954 Henderson has attended evening classes with the exception of one semester when he worked second shift at Convair SD Plant 2 and attended day classes.

In his "spare time" Henderson went home to his wife and four children, probably one of the largest families of any student on the campus.

There's Reason Behind Majority Of Nicknames Assigned to B-58s

There's pure logic in many B-58 Hustler nicknames.

"Mary Ann," for instance, stayed aloft over 18 hours recently to set a new Hustler "endurance record." No. 12 was thus named after the popular Calypso song, "All Day, All Night, Mary Ann."

"Snoopy," airplane No. 6, is outfitted with an extra long radome to accommodate test instruments. Hence the name, after the long-nosed cartoon dog.

Some names are of obvious origin: No. 8, "Eight Ball"; No. 16, "Sweet Sixteen"; No. 22, "Little Joe" (double two in dice).

"Reddy Kilowatt"—No. 25—is appropriately named, for it is now conducting tests on the electronic counter-measure system.

Airplane No. 26, "Black Dragon," was used extensively by Col. D. M. Jones, "Tokyo Raider" who is now director of the B-58 Test Force at Carswell AFB. It seems troops of the 47th Bomb Wing in England affectionately bestowed the "Black Dragon" monicker on Colonel Jones back in 1951.

"Trailblazer"—No. 18—got its name when it became the first Hustler to drop a pod using the bomb-nav system.

And "Lucky 13—Clean Sweep," (No. 13) was nicknamed after achieving all its flight test objectives.

The grand old airplane, No. 1, had the traditional nickname for No. 1, "Grandpappy."



REDDY—Pretty Gloria Tipton, FW Dept. 12, welcomes "Reddy Kilowatt" to Convair FW. Texas Electric Service Co. emblem has been adopted by B-58 Hustler No. 25.

NEWS FROM OTHER DYNAMICS DIVISIONS

General Dynamics Corporation, created in April, 1952, as successor to Electric Boat Company, is composed of seven divisions and a Canadian subsidiary, Canadair Limited, of Montreal, airframe builders. The divisions are:

Convair, head offices at San Diego, Calif., aircraft, missiles, and space systems.

Electric Boat of Groton, Conn., submarines.

Stromberg-Carlson, of Rochester, N. Y., telecommunications, electronic equipment.

Liquid Carbonic of Chicago, Ill., carbon dioxide producer, industrial and medical gases.

General Atomic of San Diego, Calif., nuclear research, development, production.

Electro Dynamic of Bayonne, N. J., electric motors, generators.

Material Service Division, Chicago, Ill., building materials, concrete products and coal.

* * *

Pace Cited For Work With NATO And National Goal Commission

NEW YORK CITY — Frank Pace Jr., chairman of the board of General Dynamics, received an honorary Doctor of Laws degree and was the principal speaker at the annual Alumni Federation luncheon during commencement day ceremonies at Columbia University in New York.



ALUMNI TALK—Frank Pace Jr. recently addressed alumni of Columbia University. Guests at speakers table included Henry Cabot Lodge Jr., ambassador to United Nations.

Among the other recipients of honorary degrees from Columbia were Vice Admiral Hyman G. Rickover, Doctor of Science; and Henry Cabot Lodge Jr., Doctor of Laws.

The citation presented to Pace read as follows: "In responsible posts of government and private industry you have made excellence of citizenship your criterion. As Secretary of the Army you helped meet the emergency of the Korean strife. The structure of NATO reflects importantly your genius for building, as does now the great corporation you serve. As vice chairman of the Presidents' Commission on National Goals, you aid our attempt to chart the future. Thus in crowded days you still find time for self-imposed duties in the public interest. Your life exemplifies the ideal we hold for the liberal education, and you merit richly the commendation implicit in the Doctorate of Laws, Honoris Causa, Columbia delights today to bestow upon you."

In his address to the Alumni Federation, Pace warned of the threat Communist China is posing to world peace. Rulers of that country "have made it clear that their goal is the complete destruction of the United States," he stated. The collapse of the summit conference "has put us back in the harsher phases of the cold war," he declared, and the United States must re-establish its "atmosphere of greatness and sense of destiny" if it is to fulfill its mission as world leader.

James Wenzel to Coordinate General Dynamics ASW Work

WASHINGTON, D. C.—Appointment of James G. Wenzel as coordinator of anti-submarine warfare (ASW) programs for General Dynamics was announced here by L. B. Richardson, senior vice president for engineering.



J. G. Wenzel

Wenzel, who previously served on the engineering staff at Convair in San Diego, replaces the late Walter V. R. Vieweg.

Coordination of both government and corporation-financed ASW programs being pursued by the various divisions of General Dynamics will be Wenzel's responsibility. Dynamics' principal efforts in the field of anti-submarine warfare are currently concentrated in Electric Boat, Stromberg-Carlson, Convair, and General Atomic Divisions and the Canadair Ltd. subsidiary. Programs which enter this field include the design and construction of atomic powered submarines, aircraft and hydrafoil craft, plus work in acoustic and non-acoustic detection, target classification and miniaturized nuclear power supplies.

A native of Springfield, Minn., Wenzel served with the U. S. Navy during World War II. He received an aeronautical engineering degree from the University of Minnesota in 1948 and a master of science degree in aircraft structures from the same university in 1950. He joined Convair in July, 1950, as an aeronautical engineer, subsequently becoming coordinator of antisubmarine warfare projects for that division.

Sullivan, Evans Win Promotions

NEW YORK—Patrick J. Sullivan, director of public relations for General Dynamics since 1952, has been named vice president-public relations for the corporation.

At the same time, Homer H. Evans, director of advertising for Dynamics since 1955, was appointed vice president-advertising.

A commercial pilot prior to World War II, Sullivan was a naval aviator in the service and later was public information officer for Naval Air Station, New York (Floyd Bennett Field). He was educated at Notre Dame.

Evans is a graduate of the University of Pennsylvania's Wharton School and was director of advertising and sales promotion for James Lee and Sons of Bridgeport, Pa., for eight years before joining Dynamics.

Prestige

Vultee Design Used by Lindy On Orient Trip

(Following is installment No. 37 in a history of Convair. This chapter deals with Jerry Vultee, whose name became a part of the Convair narrative.)

John K. Northrop resigned as Lockheed chief engineer in 1928 to found his own company. The post he vacated was given to his young assistant, 27-year-old G. F. (Jerry) Vultee,* who had worked under Northrop at Douglas Aircraft in 1926, and followed him to Lockheed the next year.

Vultee engineered improvements in Lockheed's noted Vega transport, and designed the fast new Sirius low-winged monoplane, in which Charles and Anne Lindbergh flew "north to the Orient" in 1931.

Lockheed was one of the firms acquired in 1929 by Detroit Aircraft Corp., a holding company organized at the height of the boom and destined to die early in the depression. After Detroit folded in 1931, Vultee obtained stop-gap employment with Curtiss-Wright Technical Institute at Glendale, just outside Los Angeles. Early in 1932 he secured E. L. Cord's backing for construction of a Vultee-designed eight-place transport, the V-1. This was a type needed by the Cord-controlled American Airways.

Vultee set up shop as the Airplane Development Corp. in a small hangar at Grand Central Air Terminal, Glendale. The depression was in full force, and when American cut its 20-plane order in half, officers of Airplane Development had to scratch to find buyers for the surplus.

An improved model of the transport, the V-1A, brought prestige to the Vultee name with a series of speed and distance flights starting early in 1935. A new transcontinental record was set Jan. 15 by James H. Doolittle (who had left the Air Corps for a between-the-wars career with Shell Oil). With Mrs. Doolittle as passenger he sped from Burbank to Floyd Bennett Field, New York, in 11 hours, 59 minutes. He flew entirely on instruments above a solid overcast from Colorado to Virginia.

This time was trimmed to 11 hours, 34 minutes on Feb. 21 by Leland S. Andrews, and on March 6, the same pilot flew the transport from Los Angeles to Mexico City (1,670 miles) in eight hours, nine minutes. As passengers he carried Vultee and his bride of two months, Sylvia Parker Vultee. The engineer himself was not yet a pilot.

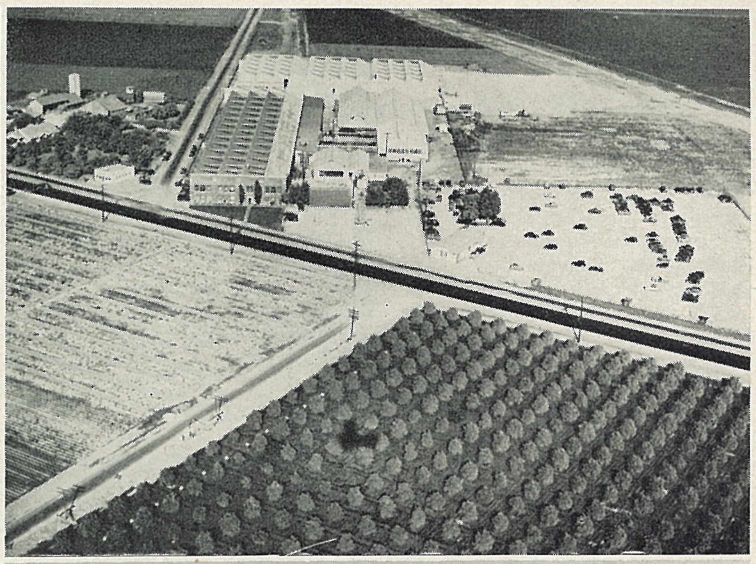
The first round-trip crossing of the Atlantic was accomplished in one of the same transports in 1936 by Dick Merrill, an Eastern Airlines pilot, and Henry Richman, the actor and amateur flyer. Their hedge against misfortune was something novel in flotation gear — 40,000 ping pong balls packed into the wings of their plane, the Lady Peace. Taking off from Floyd Bennett the afternoon of Sept. 2, they averaged 210 mph on a flight of 18 hours, 28 minutes to Llwyn Celyn, Wales. The return flight, started Sept. 14 from Southport Beach, England, was at least a technical success. After hours of travel through stormy weather the Lady Peace made a forced landing in a Newfoundland swamp.

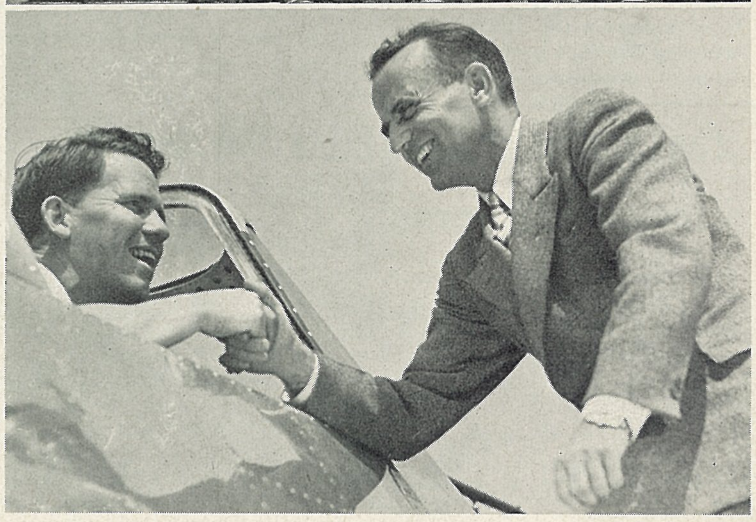
With the domestic airlines converting to multi-engine transports, Vultee brought off a successful conversion of his own starting in 1936. He redesigned the transport as the Vultee V-11 attack bomber, and soon production was humming on orders from foreign governments. In April, 1936, the plant was moved from Glendale to larger quarters in the former Emsco plant at Downey, a village in the Los Angeles "dairy and chicken" belt.

The company sold 40 attack bombers to Turkey for $2½ million and 26 to Brazil for over $1½ million. China contracted for one complete plane and parts for 29 at a cost of $1 million. Jerry Vultee traveled to the Orient to teach the customer how to assemble his ships. Russia paid $2 million for nine V-11s, plus blueprints, jigs, a quantity of material and the manufacturing rights. For the first six months of 1938 the balance sheet showed a profit of $750,000.

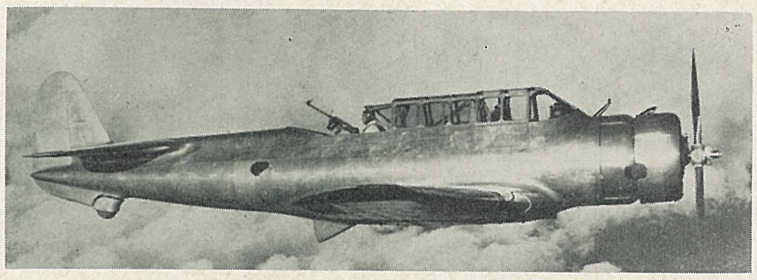
Accompanied by his wife, Vultee left for the East on a sales trip in January, 1938. He hoped to induce the Air Corps to give the company a small order for the XA-19, an American military version of the attack bomber. Flying home at the controls of his Stinson cabin plane, Vultee took off from Winslow, Ariz., the morning of Jan. 29. Shortly afterward he flew into a snow storm and crashed on the slopes of Mt. Wilson, where a search party found the charred bodies next day.

*** In contemporary publications, Vultee's given name appeared interchangeably as "Gerald" and "Gerard." There was no apparent explanation. The form used here — Gerald — is that appearing in records of the California Institute of Technology, where Vultee was a student 1921-23.**





VULTEE FIELD—Above was taken in 1937 or 1938, showing Vultee Field at Downey, Calif., in Los Angeles' "dairy and chicken" belt. Below, Jerry Vultee, right, greets Van Stone, project engineer on V-11 bomber series.

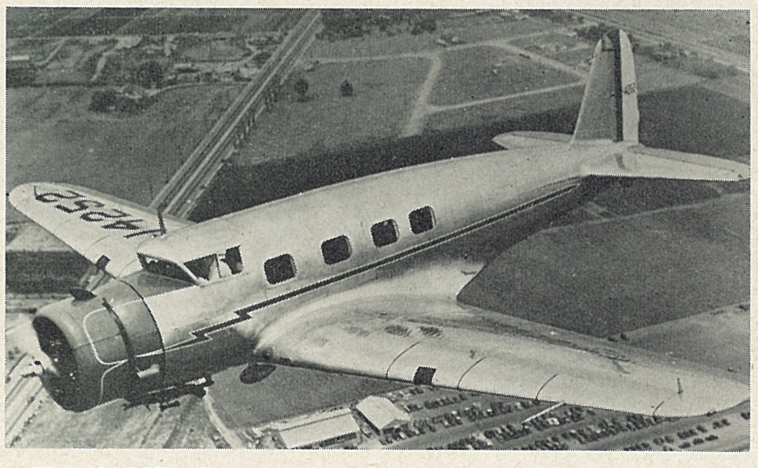


ATTACK BOMBER—Vultee-11GB, advanced version of V-11, three-place plane with provision for bombardier in aft portion. Two doors in bottom of fuselage permitted bombardier to operate while lying on stomach, held in place by strap. First V-11GB was flown initially March 3, 1937.

Mobile Power Plant Designed

ROCHESTER, N. Y. — A contract for development and fabrication of the instrumentation and safety systems for the ML-1 mobile low powered nuclear power plant has been awarded to Stromberg-Carlson Division by Aerojet-General Nucleonics of San Ramon, Calif.

The power plant being built by Aerojet-General for the U.S. Atomic Energy Commission and the Department of the Army is to be used by the Department of Defense as a portable source of power in remote areas, where it may be subjected to extremes in environmental conditions.



TRANSPORT—This was Vultee-1A, clean, fast eight-passenger transport designed by Jerry Vultee, span 50 ft., length 37 ft., gross weight, loaded, 8,500 lbs., service ceiling of 20,000 ft., cruise 215 mph, land at 60.

'Music Man' Seats On Sale Tomorrow

A limited number (300) discount tickets for the Tuesday (July 12) performance of "The Music Man" at the Fox Theater go on sale at employee services, both plants, tomorrow (June 23) at 8:30 a.m.

SD folk will be able to purchase regular $5 tickets for $4, and regular $4 tickets for $3.20.

Tickets for another Star-Light Opera performance, "Kismet" will also go on sale tomorrow at the same time. Tickets are for the Sunday (July 3) performance in the Balboa Park Bowl.

A 30 per cent reduction can be obtained on the $3.50 seats, bringing discount cost to $2.45.





STRAIGHT SHOOTERS—Rifle teams from SD-Astro walked off with both first and second place at seventh annual Industrial Recreation Council Gun Shoot held at Gillespie Field CRA Range. Members of second-place squad are on left: Gerald Cherry, Harold Schnaubelt, Rip Saether, Bill Isbell. First-place team members on right are Harold Hampy, Earl Day, Joe Williamson, and Willa Deen Ramsay.

Meeting on Friday For SD-Astro Boys Making River Trip

Another rubber-boat trip is on tap for Convair SD and Astro sons down the Rogue River in Oregon Aug. 5-17.

This will be the fourth boat trip sponsored by CRA and Convair SD Management Club in conjunction with Air Explorer Squadron 340.

This year the 120-mile trip will start at Grant's Pass, finishing at tidewater in Gold Beach. All but two of the river's 76 riffles, rapids and waterfalls will be run. A $25 fee is the only charge for each boy on the two-week trip.

A meeting for interested youths and their parents is slated June 24 in the Bldg. 14 auditorium at Convair SD. Movies of last year's Rogue River trip will be shown at the 7:30 p.m. meeting this Friday.

Adults at Convair SD or Astro interested in serving as adult leaders on the trip are asked to contact Andy Drollinger, CY-7-3701, ext. 207.

Log Book Entries

Service Emblems

SAN DIEGO

Service emblems due during the period June 16 through June 30.

Twenty-year: Dept. 3-2, F. G. Crosthwaite; Dept. 6-01, C. S. Brandt, E. E. Sowers; Dept. 7-80, V. P. Bequette; Dept. 25-6, A. W. Bonderson; Dept. 31, K. R. Abbott, R. R. Atkinson, W. F. Butcher, O. L. Johannsen, J. P. Oakley.

Dept. 101, T. R. Henrikson, C. W. Marr; Dept. 120, I. W. Walter Jr.; Dept. 145, Louis Hale; Dept. 180-0, G. A. Hasti; Dept. 197-3, J. W. Tolpo; Dept. 231, E. V. Minch; Dept. 233-0, E. L. Kirby; Dept. 401, A. L. Bishop Jr., H. A. Ferrell.

Fifteen-year: Dept. 15-6, May J. Carty; Dept. 25-1, W. H. Nanninga; Dept. 123-0, H. G. Draper; Dept. 134, H. L. Adams; Dept. 215, L. B. Blackner; Dept. 267, B. H. Bingham; Dept 288-8, Kent Sinclair

Ten-year: Dept. 3-3, Helen D. Carlton; Dept. 6, Frank Applegate, Eleanor M. Brooks, E. R. Gauthier, W. H. Highfill, J. H. Keller, W. D. Reeder, Dorothy G. Rowland, J. V. Zenari.

Dept. 14-4, Mary G. Saiz; Dept. 15, C. E. Pennick, F. B. Pollard, R. G. Weir; Dept. 25-1, R. J. Hay; Dept. 31, E. K. Rose; Dept. 34-2, H. R. Young; Dept. 101, Maude D. Reid; Dept. 116, Margaret M. Boyle, Sarah G. Kuehni; Dept. 135, G. W. Singleton.

Dept. 136, C. W. Frandsen; Dept. 137, Oscar Kirker; Dept. 139, Henry Peralta; Dept. 140, B. O. Griffith; Dept. 148, Seth Leech Jr.; Dept. 160, J. L. Ferguson, L. W. Schmitz Jr.; Dept. 171-0, L. H. Wilson.

Dept. 188-5, Mary M. Redbird, J. R. Reid Jr.; Dept. 192, W. M. Alberty Jr., Ruth Chaikoff; Dept. 197-8, Burnice D. Priddy; Dept. 204, Z. E. Bishop; Dept. 205, R. G. Adams; Dept. 216-0, Daisy R. Cole, Dorothy H. Golden; Dept. 218, Ruth H. Jorgensen, Dorothy M. Lockrem.

Dept. 230, Irene L. Clark; Dept. 231, E. R. Delgado, J. L. Hunka; Dept. 233, S. L. Sorcinelli; Dept. 267, E. E. Bowers, U. J. Makela; Dept. 292, A. R. Davis, R. H. Morgan, Violet T. Woods; Dept. 400, J. H. Bacon, Consuela B. Hayes; Dept. 401, R. M. Graham.

Retirements

SAN DIEGO

BOWLING — Herbert, Dept. 8-1. Seniority date Oct. 15, 1951, retirement effective June 3, 1960.

GOODMAN—John K., Dept. 407. Seniority date March 30, 1951, retirement effective June 3, 1960.

IRVING—Byron C., Dept. 31. Seniority date March 2, 1949, retirement effective May 3, 1960.

PALIS—Walter A., Dept. 401-4. Seniority date Oct. 13, 1950, retirement effective June 4, 1960.

SANCHEZ—Frank P., Dept. 25. Seniority date Dec. 9, 1939, retirement effective March 31, 1960.

SPLITTSTOESSER—Myrtle E., Dept. 218. Seniority date Jan. 4, 1951, retirement effective May 31, 1960.

SPLITTSTOESSER—Oscar H., Dept. 216. Seniority date Aug. 10, 1950, retirement effective May 31, 1960.

Promotions

Promotions or transfers to supervision effective June 6.

Dept. 4-0, Material Office: To procurement field supervisor, W. F. Hodgson.

Dept. 34-2, Material Procurement: To general purchasing agent, L. A. Wood.

Personals

SAN DIEGO

I would like to thank the Con-Trib Club and Dept. 138 employees for the kindness and assistance given me during my recent illness.

Ralph L. Rimmer, Dept. 138.

* * *

I wish to express sincere appreciation for the honor bestowed upon me by my friends on the occasion of my retirement from Convair.

Bert Bowling.

Births

SAN DIEGO

READING—Son, John Scott, 8 lbs., 9 oz., born May 14 to Mr. and Mrs. E. E. Reading, Dept. 6.

Deaths

SAN DIEGO

BASS—Gordon J., Dept. 137. Died June 11. Survived by wife, Hazel W.; sons, John L. and William P. Bass.; daughters, Edna Solis, Frances Reed; one brother; one sister; seven grandchildren.

McDONALD — Clyde W., Dept. 232. Died June 2. Survived by wife, Marian, and daughter, Mrs. Gloria Bryant.

Boats Still Needed To Host Youngsters In Bay on Saturday

Prospects are bright that a fishing trip for underprivileged children June 25 will be the most successful ever hosted by the Convair SD and Astro Fishing Clubs.

Committee chairmen report arrangements are being made to handle more than 140 youngsters. Still needed are more boat owners and fish rods. At SD, volunteers should contact W. T. Toon, ext. 411 or 1144. Final sign-ups at Astro can be made with Ed Bourgeois, ext. 3008.

Prizes for the youngsters are being donated by sporting goods manufacturers. Food and refreshments are being supplied by The Prophet Company and Davidson Brothers of San Diego, Inc.

The Mission Bay outing is being conducted as part of this year's Harbor Days celebration. A few openings are still available for SD and Astro men to serve as flotilla captains.

SD-Astro Skaters In Iceland Revue

Skaters from Convair SD and Astro will take part in special performances of "Like Cool on Ice," a semi-annual recital, to be presented at the Iceland Skating Rink, 6055 Lake Murray Blvd.

Performances are slated this Friday and Saturday (June 24 and 25) at 8 p.m. A Saturday matinee at 2:30 p.m. is also planned.

Many Convair skaters are taking advantage of discount prices and free lessons at the rink, Martha Woodberry and Bud Davies, CRA commissioners, report. Convair hours are between 6:30 and 8 each Thursday evening. Instruction for advance, intermediate and beginning skaters is conducted by Audrey Ericson, rink professional.

Astro Players Slate Business Meeting

Astro Players will gather July 6 at 7:30 p.m. in executive dining room for a regular business meeting.

On the agenda will be discussions on the group's workshop sessions just starting as well as plans for casting the first show, "Arsenic and Old Lace," now tentatively set for October.

Keglers to Compete In Silver Tourney

Astronautics' CRA bowlers will be among keglers competing for $10,000 in prizes during two special days of the Clairemont Bowl Silver Jubilee Tournament July 16 and 17.

The $4 entry fee includes bowling six games. Sanctioned bowlers may enter on both days using current averages.

Additional information and entry blanks are available from Ed Frankosko, Vic Salgado, Lorraine Sweeny (Sycamore), Tony Minniti and CRA Co-commissioners Jack Boyle and Willard Brassell.

SD-Astro Teams Win Rifle, Trap At Industrial Council Gun Meet

Marksmen representing Convair SD and Astro swept a majority of events during the seventh annual Industrial Recreation Council Gun Shoot held June 5.

Convair shooters grabbed first and second in both rifle and trap events and second in skeet.

Winning rifle team members were Joe Williamson, Harold Hampy, Willa Deen Ramsay and Earl Day. The second-place team included Rip Saether, Gerald Cherry, Harold Schnaubelt and W. D. Isbell.

The champion trap team was composed of Ezra Johnson, Ed Barrett, Warner Gatterman, Blas Vargas and Andy Anderson. Hank Johnson, Larry Frisbee, C. E. Kessinger, Loyd Gibbons and George Clayton composed the second-place entry.

C. W. "Red" Pharis, Leo Bernitz, Ken Wulfemeyer, Vince Cernuto and Jack Brock won second in the skeet shoot.

A Convair Palmdale squad was also entered, but failed to place. Team members were Donn Walsh, CRA Gun Club commissioner; Al Striplin, Larry Johnson, and two Hughes Aircraft men, Don Thompson and W. R. Thomas.

Rohr hosted the event at Convair's Gillespie Field range. Taking part were teams from Naval Air Station, Telco, Ken-Tel, Solar, Rohr, Ryan and Convair.

Trophies went to individual winners on first and second place teams, and to winning teams.

Soaring Contest Hosted by Convair Will Preview Glider Championships

Glider pilots from Convair SD and Astro will host and take part in a major soaring contest, sponsored by the Associated Glider Clubs of Southern California, July 2, 3 and 4, at Skylark Field in Elsinore.

The meet will be a preview of the 27th annual U.S. National Soaring Championships, according to Vic Korski, CRA commissioner.

Contest hours will start at 10 a.m. each day. Saturday and Sunday pilots will perform specific assignments for point gain. Events will include highest altitude attained, greatest distance traveled, bomb drop, aerobatics, spot landings, goal and return and round robin flights.

Specific flights are not planned for the third day, according to Korski. Pilots will have to depend upon their own ingenuity to acquire points for prizes.

More than 30 from Convair SD and Astro are expected to participate or handle ground support tasks. Spectators are invited.

Representing Convair and Palmdale will be Edwin Salkeld Jr., R. J. Stokeley, Warren Walker, Eugene Whigham, John Williams, Henry Laue, Russ Togerson, P. J. LaFrenier, Duke Mancuso, Mamoru Masaki, L. R. McClain, Walter Mooney, G. E. Olson, F. L. Packard and Rex Robinson.

Also DeVaughn North, C. F. Stark, Ted Sanford, J. C. Alley, R. A. Baker, T. J. Falk, R. L. Hendrix and Steve Keeskes.

From Astro are Doren Curtiss, K. L. Montgomery, Dr. A. J. Owens, W. S. Carter, M. E. James, Jim Mason, Cezar Banks, M. R. Barlow, A. L. Harbury, C. L. Keeler, J. O. Thompson, and G. C. Tweed Jr.

SD, Astro Players In 'Silver Whistle'

Five actors and actresses from Convair SD and Astro will be on stage when the comedy, "Silver Whistle," opens June 24 for a three-week run at the Mission Valley Playhouse.

Astro actresses featured will be Lillie Mae Barr, Laura Donnelley and Dolores Swaney. SD actors, Bert Horner and Bill Starr, also will appear. Performances will be held Friday through Sunday evenings. For reservations, call CY-7-1100.



RECORD BREAKER—Danny Conklin, 8, receives Modified A Division midget track record trophy from Elmer Lish, El Cajon track chairman, after recent race in which Astro racers participated. Danny's father is Jim Conklin (Astro Dept. 130), CRA racing commissioner. His mother, Jeannine, is in Dept. 98 at Convair SD.

Balboa Park Range Slated for Archers Late This Summer

Prospects are improving for a new archery range that can be utilized by members of the SD-Astro Archery Club, Al Phipps, club spokesman, reports.

Construction, he said, is now in progress on a new field archer's range in Balboa Park. When completed, probably in late summer, it will be the site of monthly club shoots.

Shoots are presently being held at the Singing Hills Range. Results of an event June 12 saw the following take top bow honors: Harry Ross, championship class; Robert Lorch, Class A; Dale Jennings, Class B; Eddie MacDonald, Class C. Mike English won top junior honors.

Phipps also reported that SD-Astro shooters will help man a Southern Border Archery Association booth at the Southern California Exposition and San Diego County Fair at Del Mar.

Shop Loop Softball Nines Hold Practice

Astro shop league softball practice games are now being scheduled at Linda Vista field Monday, Tuesday, Thursday and Friday evenings, with time allotted for two games per night.

John Adams School field, 3841 School St., is available for practice sessions Monday and Friday evenings.

To schedule practice games contact A. D. McFarland, Plant 2, ext. 795. Additional information concerning shop league ball is available from Jim Conklin at employee services, Bldg. 8, Astro.

Camera Clubs Plan Joint Model Shoot

Camera groups from Convair SD and Astro will stage a joint model shoot next Monday (June 27) at 7:30 p.m. in the Photo Arts Bldg., Balboa Park.

Members of both the SD Camera Club and the Astrolens will be in attendance.

REUNION PLANNED

San Diego and Astronautics graduates of San Diego High School class of 1950 are being sought for a homecoming meeting this fall. Those interested in taking part may call Kathryn Kelly Murphy (CY-8-1421), John Thomas (CO-4-2425) or Dona Dunkle Jordan (CO-4-4693).



"That's right, Miss Higgins—dressed chickens are also undressed."

CRA Sports & Recreation Convairiety

Convair Team Wins Three of Four, Earns Tie for First in City Play

Convair SD's Eagles last week were tied for first place with Southeast Merchants in the San Diego Amateur Softball Association league, both teams displaying 3 and 1 records.

The Eagles rode the strong arm of pitcher Jerry Stryker to three straight victories before dropping a 2-0 decision to Rohr. Wins were over La Mesa Engineering Service, 3-1, Southeast Merchants, 1-0, and El Cajon, 4-0.

Spectators are invited to attend Eagles' games played Tuesday and Friday evenings at either 7:30 or 9 p.m. at the Helix High School diamond.

Through last week Convair SD Rose Canyon had won one game and dropped two in the Southern California Municipal Athletic Federation League.

The Rose Canyon softballers clipped J. S. Schirm Co. 4-1, but dropped tilts with Cove Plumbing, 4-0, and Shell Oil, 8-0.

Shop league action got off to a flying start in both National and American circuits this month.

In the National League, Flight Test pounded out victories over Dept. 135 Fuselage, 8-1; Dept. 6 Loft, 8-3; and Dept. 97 Tabulating, 8-2. In other games Loft smacked Tabulating 11-1. Tabulating lost another tilt, this time to Dept. 135 Fuselage, 6-2.

In the first two rounds of American League play Mockup ran over Dept. 233, 22-0, and 880 Jets, 9-1. Dept. 6 Dynamics dropped a 9-7 contest to Dept. 233, then lost another to the 880 Jets, 9-1.

SD Coin Club Plans Display At Exposition

A Convair SD Coin Club exhibit will be one of ten entered in the numismatic category at the Southern California Exposition and San Diego County Fair which starts this Friday (June 24) at Del Mar.

The Convair display will be a comparative study, pointing up the rapid growth of coin collecting as a hobby, and the rapid climb in aircraft performance in the last few years.

According to Bob McCracken, club president, major credit for the display is due to Al Baber (Dept. 8) and Vince Bacon (Dept. 6) who did most of the work on the project.

McCracken reports that membership in the SD Coin Club has increased considerably since the first of the year. Monthly meetings are held on the third Tuesday of the month at 7:30 p.m. in the Hearing Aid Society Bldg., 3843 Herbert St. Those interested are invited to attend.

Club preparations are also under way for the San Diego Coinarama scheduled Aug. 7 at the U. S. Grant Hotel. McCracken has been named general chairman of the event which is an annual highlight of the San Diego County Inter-Club Numismatic Council.

Stamp Club Cuts Summer Meetings

Convair SD Stamp Clubbers, as in other years, will discontinue meetings during the summer months, Jack Benedict, CRA commissioner, reports.

He said the Stamp Club will resume its regular first-Thursday-of-month meeting schedule in September. Sessions are held at 7:30 p.m. in the Balboa Park Conference Bldg.



NEAR END — For past few months, G. Arleigh (Dept. 6) has been busy in home workshop converting Convair SD Water Ski Club boat to inboard model. Completion target date is July 4, in time for club holiday outing.

CRA Calendar

(Convair SD Recreation Association has some 40 activities in operation. For information on SD sports, call CRA headquarters, ext. 1245, Plant 1.)

★ ★ ★

BADMINTON—Open play for families Tuesday evenings at 7:30 p.m. in Balboa Park Federal Bldg.

CAMERA CLUB — Joint SD-Astro meeting June 27 at 7:30 p.m., Photo Arts Bldg., Balboa Park.

FISHING CLUB — Volunteer boat owners needed for Junior Fishing Derby June 25. Call W. T. Toon, ext. 411 or 1144, Plant 1.

GLIDER CLUB — Soaring contest, Skyfield Field, Elsinore, July 2-3-4, starting at 10 a.m. each day.

GOLF CLUB — CRA Sweepstakes at Caliente course July 9-10. Entries open today (June 22), close July 1, at ext. 1705, Plant 1.

ICE SKATING—Convair night every Thursday; discount rates between 6:30 and 8 p.m. at Iceland, 6055 Lake Murray Blvd.

MOVIES—Reduced-price movies Tuesday and Friday evenings at Academy Theater, 3721 University Ave. Adults, 25¢; children 15¢.

PISTOL RANGE — Regular shoots second and fourth Sundays, 9 a.m., San Diego Police Pistol Range.

RADIO CLUB — Meeting tomorrow (June 23), 7:30 p.m., Harbor Drive headquarters.

SPANISH CLASSES — Reservations open for 14-day trip to Mexico City and Acapulco. Information available at Thursday evening classes, 8:30 p.m., Room 5, Balboa Park Conference Bldg.

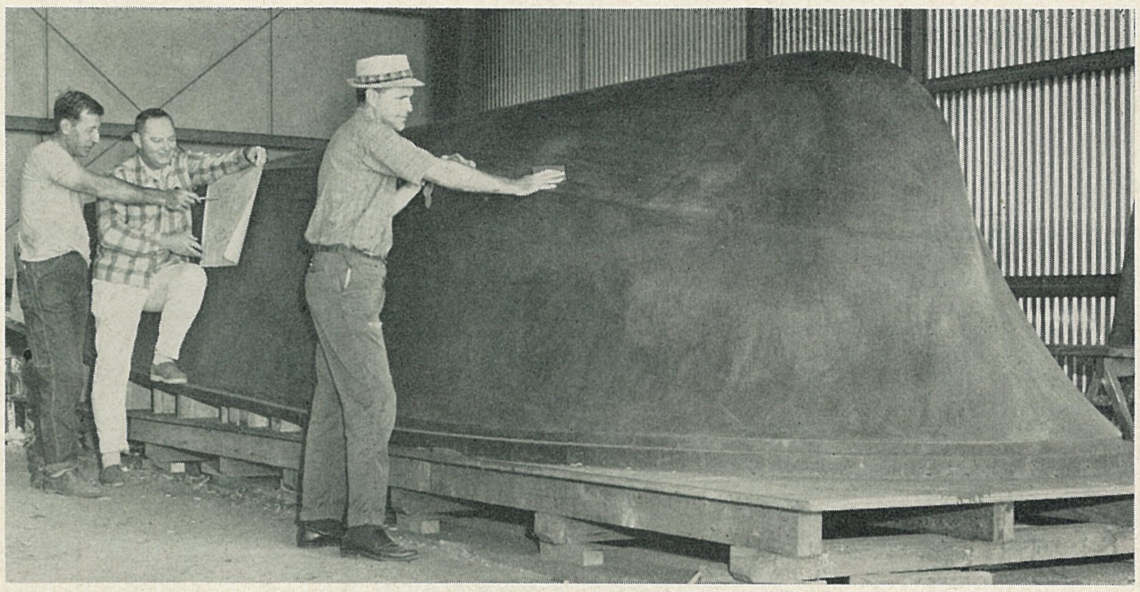
SPORTS CAR CLUB — Treasure hunt June 25 leaving from southwest corner Astronautics parking lot 8 p.m.

WATER SKI CLUB — Holiday skiing and breakfast, July 4, 7 a.m., Gleason Point, Mission Bay.

'Can-Can' Tickets At Discount Price

Discount-price tickets for the Thursday (June 30) 8:30 p.m. performance of "Can-Can" at the Loma Theater, 3150 Rosecrans, are now on sale at employee services, SD Plants 1 and 2.

Regular $2 orchestra seats can be obtained for $1.70. Seats normally priced at $2.50 cost $2.15 with discount. Coupons available at employee services must be filled out in advance to assure reservations.



WHALE OF A BOAT—Mold for 25-foot hulls nears completion at Gillespie Field boat builders' facility. SD enthusiasts will be able to build 25-foot fiber glass hulls for about $500 when production starts in next two months. Applying final touches to mold are (from left): G. E. Saeler (Dept. 15), Warren Hoyt (Dept. 400-1), and Ken Moore (Dept. 15).

Broadway High Scorer in IRC Pistol Tourney

Pistol teams from Convair SD slipped some in the rankings compared to former years but B. L. Broadway (Dept. 115) was high individual scorer with 294 points June 12 at the seventh annual Industrial Recreation Council Pistol Shoot.

SD squads placed third and fourth with team point scores of 1,113 and 1,112. San Diego Sheriff's Department was first in the tourney with 1,133. Convair Astro placed second with 1,132 points of a possible 1,200.

In addition, two other Convair SD teams placed 11th and 12th. It was the first IRC tourney in four years which a SD team failed to win.

Members of the third-place team were Broadway, Bill Dittmann (Dept. 6), Ralph Picard (Dept. 7) and Ash Bishop (Dept. 401). Shooters placing fourth included Joe Williamson (Dept. 401), J. B. Carroll (Dept. 3-1), Jim Halfacre (Dept. 180) and Carl Hornburg (Dept. 139).

Following the IRC tourney, the SD club conducted its own short national match event. Broadway placed first with 271 points, followed by Carroll, R. E. Kezar (Dept. 6), and Joe Williamson.

Sports Car Clubbers Will 'Hunt' Saturday

Next Convair SD Sports Car Club event will be a treasure hunt Saturday (June 25) with first cars scheduled to leave the southwest corner of the Astronautics parking lot at 8 p.m.

Instructions will be passed out between 7:30 and 8 p.m. Useful prizes will be given event winners at 11 p.m. at the Aztec Steak House. Contestants are asked to bring flashlight, pencil, paper and map.

Mold Almost Completed at Gillespie For Production of 25-Foot Cruisers

If you've ever dreamed about owning a $9,000 boat, a new CRA-sponsored boat building program may make your dream come true for considerably less cost — approximately $2,500.

That's the estimated total price (including hull, motor, deck and cabin) of the most ambitious of all fiber glass boat programs ever sponsored by CRA.

Thanks to the volunteer work of five men at Gillespie Field, boating enthusiasts at Convair SD will soon be able to sign up for 25-foot fiber glass hulls that will cost about $500 to build.

According to G. E. Saeler (Dept. 15), who along with Warren Hoyt (Dept. 400-1), has headed preparations for the 25-foot boats, the female mold was almost completed last week.

The Convair men during the past two months have spent some 300 manhours getting the male plug into shape and alignment as well as applying layer after layer of fiber glass cloth and resin as they build up the mold.

"To the best of our knowledge, a finished 25-footer, similar in hull design to the CRA craft, costs roughly between $7,000 and $9,000," Saeler said. "Rough estimates for a finished 25-foot craft, using the CRA mold, would be in the neighborhood of $2,500 and could be less, depending on the preference of individuals.

"A fixed price of the hulls has not yet been ascertained but they will probably cost about $500. Marine convertible engines can be obtained for about $650, add another $1,000 for cabin, deck and furnishings and you'll have a luxurious cruiser," he stated.

Most of the credit in preparing the plug and mold belongs to Hoyt and Saeler. They were assisted by Ronald Moore (Dept. 15), Maj. Kenneth Gorton, presently at Convair SD in the training with industry program, and Robert Harshaw, Dept. 406 patternmaker.

Work on the hull design was started more than two years ago. Top engineering advice was solicited and scale models were put through cycles in the test basin. The original configuration tested was that of a 22½-foot model, later changed, because of greater flexibility, to the present 25-foot boat.

Actually, when production is started, boat builders will have their choice of one of six boats. Hull design will permit construction of either 22½-foot or 25-foot inboard or outboard cabin cruisers or sportfishers in either length.

Boat width of eight feet is safely under limits for highway transportation. Depending on cabin configuration, the boat will be able to sleep four to six.

When production is started within the next two or three months, those signing up will be placed on teams. Names will be advanced to the top of the boat-building list as boats are turned out on an assembly-line basis.

Title Game Tonight For SD Volleyballers

Volleyball teams from Electrical and Industrial Engineering will meet tonight (June 22) in a game that will decide the second-round league championship.

Going into tonight's game, Electrical has a record of 4-0, Industrial Engineering slate is 3-1. The first-round winner, Dept. 3, is sporting a record of 2-2, good enough for third place in the second half of play.

Dept. 3 will meet the winner of the Electrical-Industrial Engineering contest or play-off game. A play-off for either second-round or league championship is scheduled next Wednesday (June 29) in Muni Gym, Balboa Park.

Water Skiers Plan Outing on July 4

Water Ski Club members will combine breakfast and skiing at a special holiday event on July 4 starting at 7 a.m. at Gleason Point, Mission Bay.

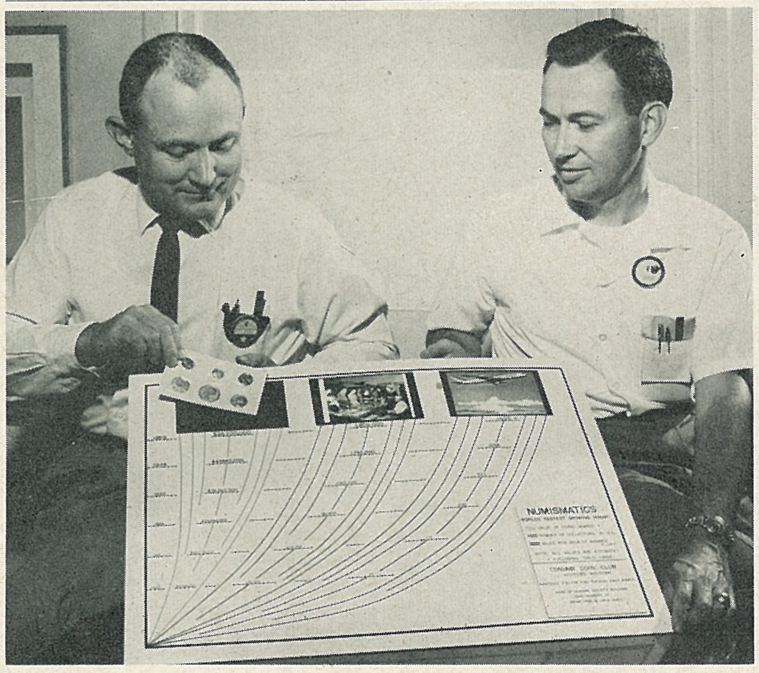
Gene Sevigny, club commodore, said Convair SD guests are welcome to attend the event or any of the Saturday and Sunday outings on the east shore of Tierra del Fuego, held between 9:30 a.m. and 1:30 p.m. Free instruction is offered beginners.

New officers will be elected by the club at a meeting July 7. Nominations were accepted at a meeting this month.

Caliente Next Stop For CRA Golf Tour

CRA's golf caravan at Convair SD will cross the border July 9-10 for a sweepstakes at Caliente.

Entries open today (June 22) at ext. 1705, Plant 1. July 1 will be deadline for entries, according to Ken Wulfemeyer.



FOR FAIR—Showcase display tracing growth of coin collecting hobby and rapid climb of aircraft performance, featuring 880, will be entered by SD Coin Club at Southern California Exposition and San Diego County Fair. Measuring proof set for size is A. L. Baber (Dept. 8). At right is Vince Bacon (Dept. 6).

Don Germeraad Gets 'Mug of '60'

Don Germeraad, chief engineering test pilot at Convair SD, last week received Convair San Diego Management Club's highest honor, Mug of the Year, at an El Cortez Hotel meeting.

B. F. Coggan, Convair vice president-special projects, made the presentation. He pointed out that Germeraad's keen judgment and sense of timing have been a tremendous asset during Convair flight test programs, citing two occasions on which Germeraad's quick action averted possible mishaps.

"Don is one of the most deserving candidates ever to receive this honor," Coggan said. A standing ovation followed presentation of the symbolic mug.

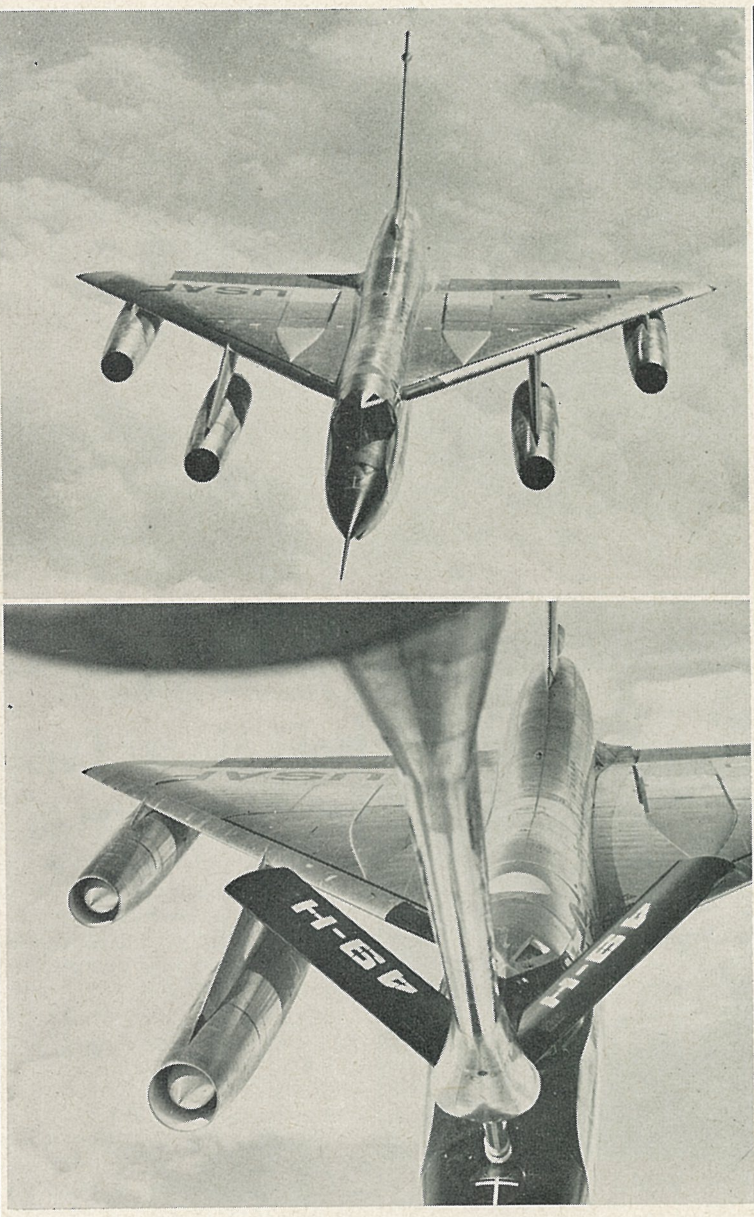
Germeraad joined Convair SD as production flight co-pilot in 1946, became flight captain in 1947. He became engineering test pilot in 1951, and chief engineering test pilot in 1954.

Robert C. Loomis made his first appearance before the club as Convair vice president and San Diego operating division manager.

He congratulated the group for a "magnificent job" in meeting 880 delivery and certification dates, but pointed out that a big job remains.

Special efforts, Loomis said, will be directed in two areas. "In the face of ever-increasing competition, costs must be reduced even more. At the same time every effort will be made to bring more new business to Convair San Diego, so that it continues as the top operating division."

R. B. Bailey (Dept. 292) received the May MacSave-it trophy. New club officers were installed by Walter Palmer, Zone A director for National Management Association. Main speaker was William Littlewood, vice president-equipment research, American Airlines.



CLOSING IN—Picture of high-flying Air Force B-58 Hustler is snapped by Photographer Aaron Murray from boom operator's position in KC-135 Tanker, immediately before and during operation in mid-air.

Profits Drop to 1.5 Pct. In Aerospace Industry

Earnings in the aerospace industry dropped to a new low in 1959 of 1.5 per cent of profit on sales, the Aerospace Industries Association reported this month, quoting the Securities and Exchange Commission.

This compares with an average of 4.5 per cent of profit to sales for all manufacturing corporations.

By the other standard of measurement—rate of profit to net worth—the aerospace industry was below the average. The aerospace industry showed a return of 8 per cent on net worth compared with an all manufacturing average of 9.6 per cent.

Earnings of the aerospace industry have declined steadily since 1955 when net income was 3.8 per cent of sales. Today it is less than half that amount.

The principal reason for this decline has been the great problems that have accompanied the technological surge that has occurred in the past five years, the A.I.A. continued.

Volume production runs, the prime source of earnings for the aerospace industry, are past. A modern weapon system can inflict target damage that once required fleets of bombers.

In addition, overhead costs for research and development and new facilities have increased sharply. For example, the amount of research and development on a World War II bomber accounted for only a small percentage of the total weapon dollar. Today, in the case of the intercontinental ballistic missile, research and development accounts for 60 per cent of the total weapon dollar.

Although the floor space area required for the aerospace industry today is only one half that required three years ago, facilities are a prime problem. The old high-bay areas for aircraft production cannot be economically adapted to production methods today which require precise temperature controls, rigid inspection, checking and testing operations. New facilities must be built which cost at least three times as much, on a square foot basis, as the old facilities.

There is a widespread impression that the Government bears the cost for these facilities. Here are the facts: In 1957, approximately $780 million was expended for new facilities in the aerospace industry. Of this amount, about $515 million, or 66 per cent of the total, came from the dwindling earnings of the aerospace industry.

It is imperative that these firms continue to invest heavily in these facilities if they are to remain competitive. Funds for these facility investments in the long run can come only from earnings.

Backlog of orders for aircraft, aircraft engines and propellers at the end of the first quarter of 1960 amounted to $12,253 million, an increase of 1 per cent over the last quarter of 1959.

Total net new orders received during the first quarter of 1960 amounted to $2,865 million, and net sales during the quarter amounted to $2,732 million.

Employment in the aerospace industry continued its downward spiral in February to 686,800 workers from the 693,700 reported in January, according to the Bureau of Labor Statistics.

This compares with an average of 734,000 workers in 1959, and a peak in recent years of 861,700 workers in 1957. The February, 1960, figure represents a decline of 24 per cent from the high of 861,700 in 1957.

SD Welding Society Elects Convair Men

American Welding Society, San Diego Chapter, last month elected five men from Convair SD and Astro to office.

They are R. L. Hawkins (Astro Dept. 758), J. P. Hopman (Astro Dept. 700), Kenneth Adams (SD Dept. 190), executive committee members; Richard Gallagher (Astro Dept. 758), vice-recording secretary; and William Prentiss (Astro Dept. 321), sergeant at arms.

Hawkins is the retiring chairman of the chapter, which presently numbers 125 members. Its purpose is to promote the science and art of welding.

Russians Republish FW Technical Paper

An article written by Joe P. Thomas, senior engineering chemist at Convair FW, recently appeared as a reprint in a Russian technical pamphlet.

Entitled "Accelerated Aging Tests and Life Aging Properties of Aircraft Metal Adhesives," the article first appeared in the "ASTM Bulletin," monthly magazine for the American Society for Testing Materials."

Recently a scientific consultant firm which "collects information published in foreign language" passed the Russian reprint on to Thomas. Republishing scientific articles of value is a common practice in Russia.

B-58 Pilots Must Meet Exacting Requirements

Requirements for joining the Air Force's B-58 program are "relatively high at present," according to Col. James K. Johnson, commander of the 43rd Bomb Wing at Carswell AFB.

Colonel Johnson lauded the B-58's performance and outlined its flight and training characteristics in an article, "The Hustling Hustler," appearing in June issue of "Combat Crew," official publication of SAC.

"A pilot must possess a minimum of 1,000 hours total jet flying time," Colonel Johnson wrote, "of which 500 hours must have been flown since he was upgraded to aircraft commander status in a SAC multi-engine bomber-recon jet aircraft. . . and he must have been an aircraft commander for at least one year on a SAC senior or select crew.

"The navigator is required to have 500 hours in a SAC multi-engine bomber/recon jet aircraft and must also have served for one year on a SAC senior or select crew.

"The DSO must possess 200 hours in a SAC multi-engine jet aircraft or be a qualified Phase V Capsule EWO officer."

According to the article, the navigator and DSO each receive extensive training in their specialties. The navigator attends a six-week course on the bomb-nav system at Mather AFB before coming to Carswell; the DSO attends a six-week training course at Keesler AFB.

A one-week training period for live gunnery fireout at Schilling AFB is planned in the near future.

"The flight characteristics are excellent," Colonel Johnson said of the B-58, "and response to controls is positive and instantaneous. . . It is my firm conviction that the B-58 is an excellent aircraft and has a definite place in our combat inventory."

B-58 Low Level Movie Shown

A continuous film showing of a B-58 Texas-to-California low-level flight was a highlight of the recent national convention of American Society for Quality Control in San Francisco.

The film was part of the Convair FW exhibit which showed application and use of electronic data processing equipment as related to control of quality.

J. Y. McClure, Convair FW manager of quality control, was elected president of the 12,000-member society at the affair.

G. E. Owen, D. B. Tallon, and J. L. Coburn of quality control and reliability departments also attended the convention.

Quality control managers and representatives from each of the General Dynamics Divisions attended the annual General Dynamics quality control managers meeting preceding the convention.

Jet 880 Door Seal Subject of Article

Richard F. Summers, Convair SD design engineer, has received a $100 award of merit for his article explaining the Convair 880 jet transport door seal published in May issue of "Materials in Design Engineering."

Summers, who was responsible for design of the door seal used on Convair's jet transports, was commended for "imaginative and progressive use of engineering materials in product design." His article was titled "Spring Steel, Dacron Fabric, Silicone Rubber Combine to Make Jet Door Seal 'Fail-Safe.'"

SD Salvage Yard Will Close July 2

Convair SD's employee salvage yard will be closed Saturday (July 2) because of the holiday weekend. The regular Saturday schedule, 7:30 to 11 a.m., will resume July 9.

Convair SD Daughter Tries For Movie Role

A Convair daughter may be playing the only feminine role in a forthcoming Warner Bros. motion picture following recent tryouts.

Raquel Tejada Welch, daughter of Jo Hoyt (SD-Dept. 192-5) and Armand Tejada, Astro engineer, was screen tested last week for "Gold of the Seven Saints" at the Burbank studios.

She was "Fairest of the Fair," and Maid of California for 1958 and specialized in dramatics during her school years at La Jolla High School and San Diego State College.



"Some of my subscribers insist on fresh news hot off the press."

AF Will Activate 13th 106 Squadron

Thirteenth F-106 squadron to be activated will be located at George AFB, near Victorville, Calif.

Convair-built jet interceptors will be going to the 329th Fighter-Interceptor Squadron by the middle of next month with Convair SD field service representatives due there July 1. C. I. Callison will come south from Geiger Air Base at Spokane, Wash., to join Ray Reinagel, currently at Convair Palmdale facility.

Next AF base to receive F-106s will be Langley AFB at Hampton, Va.

Purchasing Agents Elect Blakefield

Frank G. Blakefield of Astronautics was installed recently as president of Purchasing Agents' Association of San Diego. Blakefield is an Astro buying supervisor, specializing in facilities, leases and service contracts.

Blakefield (Dept. 212-1) has worked at Astro since 1955.



"I found this old work shirt I lost . . . hanging on the back of your closet door . . ."

C-V CONVAIR

Published every other Wednesday.

GD GENERAL DYNAMICS

Convair Division of General Dynamics Corporation.

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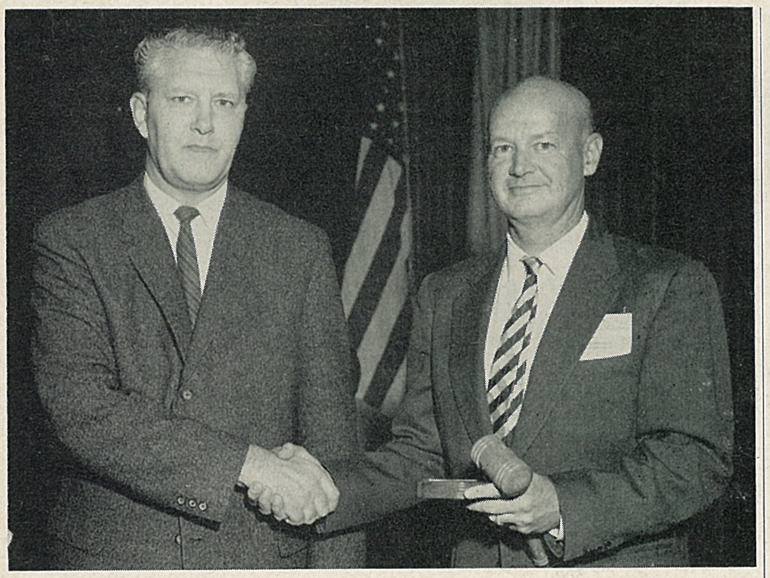
San Diego EDITION

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SAN DIEGO, POMONA, ANTELOPE VALLEY, VANDENBERG AFB, CALIF. — AFMTC, CAPE CANAVERAL, FLA., FORT WORTH, TEX.



CLUB PRESIDENTS—L. G. "Larry" Lawson (Dept. 188-1), on left, was installed at June meeting as president of Convair SD Management Club. Outgoing prexy, T. H. Chadwick (Dept. 6), is on right. New officers were installed by Walter Palmer, Zone A director for National Management Association.

SD Jet Transport Dept. Leads in Volume of ESs

Leading all departments at Convair San Diego for the greatest number of Employee Suggestions and Cost Improvement Proposals submitted so far this year is Dept. 146, jet transport wing primary and mate.

Ahead of the pack by only four suggestions, Dept. 146 has turned in 85 with Dept. 321, field operations at Palmdale facility, and Dept. 401, tool manufacturing, tied at 81.

Newly-formed plastics and trim department at Convair SD (Dept. 129) already has reached seventh place in number of ESs and CIPs submitted in the short time it has been in existence, pointed out D. L. Johnson, systems and procedures chief, in charge of SD cost reduction procedure.

"People at Convair SD now working with new materials and processes, especially in plastics and electronics, have a real opportunity to share ideas with the company and make money for themselves," he emphasized.

Other top departments were Dept. 6, 77; Dept. 188, 77; Dept. 25, 72. Altogether 1,638 Employee Suggestions and 375 Cost Improvement Proposals have been submitted during the first six months of this year.

"Ideas from employees have been a major factor in improving productivity and in lowering costs," said Johnson, as he pointed out that such improvement betters Convair's competitive position, makes more jobs and improves job security.

"When you get an idea," he advised, "fill out a suggestion form and drop it in a nearby suggestion box!"

Accepted Employee Suggestions pay off at 10 per cent of the estimated savings to the company for the first year.

Ehricke and Green To Offer Lecture Series at SD State

Two Convair scientists will be giving lectures in a summer session series at San Diego State College.

Krafft A. Ehricke, Centaur program director for Astronautics, will talk on "Problems of Manned Space Vehicles" Thursday (July 24). The following week (July 21), Dr. A. E. S. Green, Convair SD chief of physics, will discuss "Parallelism Between Studies of the Solar System and Studies of the Nucleus."

The six-week series on Contemporary Problems in Physical Science is held Thursdays from June 30-Aug. 4 in Science Lecture Hall LS-101 at State, 7:30 p.m. Lectures are open to the public without admission charge.



PILOT EVALUATION—A. P. Wilson, Convair SD production flight captain, points out Convair jet transport features to Air Line Pilot Association members, at San Diego recently for 880 evaluation. To right of Wilson are Jack Rogers, SD flight engineer; H. H. Thurston Jr., TWA captain; J. W. Meek and R. D. Potter, Delta Air Line captains; T. G. Linnert, chief engineer, ALPA, at Chicago; R. Adickes, TWA captain and chairman ALPA 880 evaluation committee; and W. S. Lowe, Convair SD engineering flight test coordinator.

Hand-Picked Programmers Finish Course

Sixteen Convair San Diego men this week are completing the specialized IBM training course designed to equip them as data processing programmers.

This is the second year Convair SD has sponsored such a course in cooperation with International Business Machines Corp., explained W. E. Newton, SD educational services coordinator. Out of 140 Convair SD people applying for the training, the 16 carefully-screened students have attended classes eight hours a day for the last four weeks.

"We are constantly looking within Convair SD for people who show an aptitude for this highly-skilled type of work. They must be extremely adaptable to master new concepts, new techniques, and new equipment," said Newton, who pointed out that a mathematical and accounting background is desirable.

Of the 16 accepted for this year's IBM training, three are SD State College graduates in mathematics and accounting; six are from Convair SD data processing; the rest are from proof planning, production planning, engineering library, engineering audit and procedures, manufacturing control, plastic fabrication, and engineering loft.

They are: Frederick D. Schwend, Janet C. Russell, Clarence Pedersen, Anthony Bataller, Geoffrey G. Martin, David R. Pearce, Joseph Vella, Fred A. Roetter, James J. Dobbin, Ernest H. Lashlee, Francis W. Kelly, Allen D. Pratt, John B. Balistrieri, Rudolph F. Renteria, Victor Mendoza Jr., and Donald Mead.

Five of the first 10 to complete the course a year ago are now in the programming function for Convair SD's 705 business computer system.

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PROGRAMMERS GET 705 ASSIGNMENTS

Programmers will go as needed into Convair SD's data processing operations where they will prepare information fed into the 705 business computing system.

Installed at Convair SD in the fall of 1958, the 705 computer located in a humidity and temperature-controlled area in Bldg. 8, Plant 1, is used to tabulate and compile more and more of Convair's operations—financial reports, labor accounting, material requirements and scheduling. It is furnished under lease from IBM at $47,000 per month.

Miraculously fast, the 705 can execute over 8,000 additions and subtractions per second on five-digit numbers, said Charles Garner, EDPM supervisor. Its "mem-

(Continued on Page 2)

Openings Remaining In In-Plant Courses

A few openings still remain for three in-plant courses starting July 27 at Convair SD.

The six-week summer classes will be held two hours on two days each week at off-work times, explained Mark Saunders of SD educational services.

Registration may be made now for "Technical Writing," taught by Louis Henderson, Tuesdays and Thursdays, 4-6 p.m.; "Optical Tooling," Frank Sladek, instructor, Mondays and Wednesdays, 3:45-5:45 p.m.; "Blueprint Reading," Chris Gonzales, Tuesdays and Thursdays, 3:45-5:45 p.m.

Information is available from Saunders, coordinator, at ext. 491, Plant 1.



ABOVE THE CLOUDS—Striking view of Convair 880 shows it emerging from cloud formation. For his important role as pilot for this airplane Don Germeraad (see below) received SD Management Club's "Man of Year" award.



MAN OF YEAR—Big smiles were in order for Mr. and Mrs. Don Germeraad at last month's Management Club meeting. Germeraad, chief Convair SD engineering test pilot, received Mug of Year, SD club's top honor. He received standing ovation following presentation by B. F. Coggan, Convair vice president—special projects.

Next Tuesday Will Be Deadline For CRA Padre Ticket Drawing

Baseball fans at Convair SD have received more than 250 free tickets to San Diego Padre games this season and more ducats will be given winners of a CRA-sponsored drawing next week.

Deadline for the next drawing is 3:30 p.m., July 12. Each winner will receive two tickets, good for Westgate Park games between July 22 and Aug. 8. During the home stand, the Padres will play Salt Lake City, Seattle, Spokane, Portland and Vancouver ball clubs.

SD baseball fans can enter by jotting down name, clock number, shift, department number, location and phone extension. One entry per person is allowed.

Drawing boxes are located at employee services, both plants; at Rose Canyon, in the office of Virginia Cannon, ext. 2125; Fordham St., office of Bessie Cooper, ext. 100; and at the ramp, in the office of Ralph Sachs, Bldg. 37, ext. 425.

Lecturer Known as 'Mr. Creativity' Signed For July 13 Management Club Speaker

Dr. Herbert True, better known as "Mr. Creativity," will be main speaker at the July 13 meeting of Convair SD Management Club.

Called one of the most dynamic speakers in the country, Dr. True will talk on "Creative Management 1965." Besides his activities as author and lecturer, he serves as special consultant on creative behavior to such organizations as Trans World Airlines, U. S. Air Force, American Management Association. He is vice president of Visual Research, Inc., Chicago, Ill.

Meeting at Catamaran Hotel, 3999 Mission Blvd., Management Club members will gather for a social hour at 5:30 p.m., preceding 6:30 dinner. Tickets, at $2.50 each, are being sold through usual outlets on a first-come basis. Seating is limited to 400.

Arrangements for the meeting are in charge of industrial relations and manufacturing research and development departments.



ROYAL RIDE—Aga Khan IV (at right) talks over "smooth" ride after F-106B flight with Col. Joe Davis Jr., chief of flight at WADD, Dayton, Ohio, who piloted Convair-built plane for "His Highness."

Full Load of Travelers Signed For Europe Trip Via Pole Route

A full load of Convair San Diego and Astro travelers will be off to Europe this fall on the CRA-sponsored trip, via Scandanavian Airline System's jet polar flight.

Quota for the chartered flight, which leaves Los Angeles for Copenhagen Oct. 29, was filled over two weeks ago, said Martha Woodberry of Convair SD Convair Recreation Association office. With a capacity load of 120 passengers, round-trip fare is $311.54 per person.

Two-thirds of the number signed for the trip are Convair San Diego people, the rest from Astro. In the group of 95 who have indicated that they wish only transportation there and back, are many alien engineers who will be visiting relatives in Germany, England, and Italy. Optional tours will be arranged for the other 25 passengers.

All persons making the trip will meet in Los Angeles Oct. 29 for a noon SAS flight. Return flight will leave London Saturday (Nov. 12).

Each person, who has already made his deposit, will be notified individually of time and place of a meeting later this month to learn details of tour arrangements. Information will be given on type of clothing, scarce items, passport and vaccination requirements, money exchange in the various countries. All questions will be answered by Gordon Oliver, district sales manager of SAS.



MANY YEARS—John J. Panfil, SD Dept. 206, last month joined the ever-increasing circle of employees who have completed 30 years Convair service.

AF OFFICERS NEAR END OF SD TOUR

Maj. Kenneth Gorton and Capt. Thomas Townes, AF officers, this month are winding up their year in training-with-industry program at Convair San Diego.

For the next couple of weeks they will be viewing activities in General Office functions in Bldg. 19 at San Diego under guidance of H. T. Brooks, college relations administrator. This year's term of duty at Convair SD will end in August when they receive new AF assignments.

The training-with-industry program has been conducted at executive level. While at Convair SD the officers have been conducted through the various administrative functions under direction of educational services with Mark Saunders coordinator.

Four AF officers in the same program at Convair Fort Worth are due in San Diego July 18 for a short briefing at Convair SD and Astronautics plants. They are Maj. H. M. Watkins, Maj. F. E. Keller, Capt. M. D. LeBon, and Capt. L. A. Keefe Jr.

Industrial Engineers Win in Volleyball

Volleyballers from Industrial Engineering last week beat Electrical in two straight games 16-14 and 15-7 to win the Convair SD shop volleyball title.

Industrial Engineering played the first half of league games without a loss and Electrical went undefeated to win the second-round title. CRA will award individual trophies to members of both teams.

★ Convairiety ★

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SD Editorial Offices, Building 32, Plant 1, ext. 1071. Staff: Grayce Fath, Helen Pemberton, Fred Bettinger.

Astronautics Editorial Offices, Bldg. 8, Astro site, ext. 3322. Staff: Bryan Weickersheimmer, news editor; Willard Harwood.

FW Editorial Offices, Col. 73C, ext. 2961. Mailing address: Convairiety, Convair, Fort Worth, Texas. Telephone FErshing 8-7311. Staff: Dave Lewis, news editor; Susan Bagby, Mary Beck.

Pomona Editorial Offices, Room 106-D, Bldg. 1, ext. 6226/5279, mail zone 3-3. Staff: James Combs Jr., news editor; Dorothy Keller.

Palmdale-Holloman Editorial Offices: Chuck Willey, CRA office, Room 36, Bldg. 301B, ext. 331, Palmdale facility. O. J. Ancel, industrial relations, ext. 20, Holloman AFB.

Convair Scholarship Winners Assigned Posts in Engineering

Seven Convair SD scholarship winners, including two girls, have been assigned posts in the Convair engineering department for the summer months.

The seven undergraduate students plus eight faculty members from universities and colleges throughout the country will be the only summer hires placed on Convair SD's payroll this year, according to M. C. Curtis, industrial relations administrator-engineering.

Most of the faculty members have already spent at least two summers at Convair SD.

The students include both Convair sons and Management Club scholarships winners. They are Fred Hunemueller, Melanie J. Rohr, Dennis C. Bunde, Neil H. Timm, Allan R. King, James L. Matteson, Marcia Fritz.

Among the faculty members are A. N. Lowan, Yeshiva University, New York City; J. R. Betten, Iowa State (graduate assistant); H. S. Stillwell, University of Illinois; E. G. Aiken, Cal-Western; A. P. Mizisin, San Diego Junior College; A. R. Rana, North Dakota State; C. Morgan, San Diego State; S. T. Paine, Stanford (graduate assistant).

AF Team of 100 Checks TB-58 On Compliance

About 100 Air Force and technical personnel conducted the AF Contractual Technical Compliance Inspection of TB-58 No. 1 June 14-15 at Convair FW.

Maj. G. J. Lateano, B-58 WSPO and coordinator of the inspection, said the team's purpose was to "check for compliance with contractual requirements.

"We took a look at all new items on the TB-58," Major Lateano said. "Naturally, all the items common to the B-58 and TB-58 had been inspected and/or demonstrated earlier in the B-58 program.

"Compatibility of ground support equipment with airborne systems was also demonstrated where not previously done and where equipment was available."

Inspection of the trainer bomber came on the heels of successful checkout flights by Convair crews.

"Following inspection, the TB-58 was slated for further shakedown flights by both Convair and Air Force personnel, followed by delivery inspection," said Oscar Wehmanen, who with D. R. Redwine served as coordinators.

Programmers Hand-Picked

(Continued from Page 1)

ory" can store 40,000 characters at one time.

Entire payroll for Convair SD and its off-site bases is compiled in 3½ hours! It took two shifts more than three days to do the same job by electric accounting machines. (This is a far cry from 25 years ago when a crew of four labored all day to put together the payroll and count out the cash for 1,500 people who lined up after work to receive their pay envelopes!)

Students Will Host Apprentices at SD

Apprentices at Convair San Diego and their families will gather for a beach party July 16 as guests of Student Chapter of American Society of Tool and Manufacturing Engineers.

Site of the affair will be north end of Ocean Beach by the jetty with activities to begin at 2 p.m. On slate of events will be a volleyball tournament between tooling and electronic apprentices.

For further information call any of the following: Marvin Bauman, AT-1-1455; Fred Simeth, AC-3-6622; Dan Allen, AT-4-5253; Gilbert Mendoza, AT-1-3974; Joe Franca, CY-8-5946; or Bill Moilanen, AC-2-2367.

Early Registration Urged for Bowlers

Winter league bowling will not start until September but now's the time to make reservations in the league of your choice, Jim Hayman, bowling commissioner, reminds.

Early August will be deadline for entries in Convair SD bowling leagues, Hayman said. "The various alleys require early registration and we hope all Convair keglers will give us early notice of the league of their choice," he added.

Complete listings of leagues available are now posted on CRA bulletin boards. Information can be obtained by calling Jim Hayman, HO-6-1262, or Pete Beyrer, ext. 1245, Plant 1, afternoons.

CONVAIRIETY HELPS LOCATE BROTHER

M/Sgt. Herbert Cash, a member of armament crew checking and loading F-106 rockets and missiles during recent tests at Tyndall AFB, Fla. (**Convairiety**, June 22, 1960), turns out to be a brother of SD Dept. 400's Oscar Cash, who has been with Convair since 1953.

The brothers originally were from Paden, Okla., and during World War II Oscar served at Camp Roberts while Herbert was a Navy chief on the Murmansk run. After the war Herbert decided to try the Air Force.

"My brother wrote me from McGuire AFB that he might be going to Florida to work on F-106s, and I see by **Convairiety** that he made it," Oscar remarked.

Coin Club Meeting Planned for Youths

Junior members of the Convair SD Coin Club will be in the spotlight at the next meeting Tuesday (July 19) in the Hearing Aid Society Bldg., 3843 Herbert St.

The 7:30 p.m. program will be arranged especially for the youths. Sons and daughters of members are invited to make display exhibits and an outstanding young numismatist in the San Diego area is being sought as guest speaker.

The "youth night" meeting will be filled out with door prizes, refreshments and a coin auction.



MEMENTO—Col. G. C. Willcox, new commander of 3245th Air Base Wing at L. G. Hanscom Field, Bedford, Mass., receives F-102A model from Charles Leonard, Convair SD field service rep, after checkout ride in Convair interceptor.



MAY "MAC"—Trophy for cost reduction activities at Convair SD went to G. R. Bailey (Dept. 197) at Management Club meeting last month.

SD Con-Trib Approves Off-Site Donations, Gift to Youth Group

Gifts of $1,810 to a San Diego youth group and three off-site organizations were approved last month by Convair SD Employees' Con-Trib-Club committee.

Girl Scout Council of San Diego County will receive $360 for summer camperships. City of Hope was voted $750 for a microscope and $200 will go to Crippled Children's Society of Los Angeles on behalf of Antelope Valley Con-Trib members.

National Health Agencies at Alamogordo, N. M., site of Holloman AFB, will get $500. A donation of $1,000 to the building fund of Alamogordo's Central Youth Activity was given tentative approval after recommendation by Holloman's Con-Trib-Club advisory committee.

Bloodmobile Slated To Visit Plant 2

Blood donors at Convair SD Plant 2 will have a chance to sign up next week for the first bloodmobile visit since February at that location.

Cards will be in the hands of department heads next Monday (July 18). Date of the bloodmobile visit is July 28, said Ken Wulfemeyer of SD employee services, who urges all first-shift people to turn out. He explained that Convair SD's credit with San Diego Blood Bank is running low with no collection made in the last two months.

Two Pomona Depts. Tie in May Safety

Two departments, administrative services and sheet metal, tied for first place with "perfect" scores in the monthly safety contest for May at Convair Pomona, T. R. Smith, safety supervisor, has announced.

Other departments, listed in the order in which they placed are: experimental factory, test equipment maintenance, material, tool manufacturing, quality control, final assembly and test operations, engineering, sub-assembly, plant engineering, manufacturing control, machine shop, electrical assembly and processing.

Irish-American Social Scheduled

Convair SD and Astro people who have the right to "wear the green" are invited to the monthly social of San Diego's Irish-American Club July 16.

Affair is held at 1035 Nineteenth St. from 8:30 p.m. to midnight. Modern and Irish dancing by the Emerald Isle Dance Band will highlight the evening. Admission is $1.

Black Top Defied By Tomato Plant

A hardy tomato plant is poking its head through black top at Convair's Rosecrans warehouse.

Determined to show what it can do, the obstinate plant boasts 20 maturing tomatoes.

Miniature of Centaur Launch Site Pinpoints Details of Installation

A Centaur launching site, in miniature, has been constructed at Convair San Diego for Astronautics, whose Atlas ICBM will be used as first-stage booster of the space explorer. It will be pinpointing installation details for Astro people working on the program.

The 18-foot-long model, built by Karl Busch and his group of SD service illustrations' training aids, is perfect in every detail — even to periscopes and launch signal tower on top of the blockhouse. Built to the scale of one-quarter inch to the foot, the service tower (actually 160 feet high) with missile in upright position dominates the layout in its red and white color scheme.

From launch service building at the base of the imbilical tower, adjacent to the launching tower and serving as structural support with missile connect cabling, to launch operations building (in reality, several hundred feet away) the model shows how the thousands of wires for instrumentation will be placed.

Cables are part of the Centaur landline instrumentation system designed at Convair SD by engineering flight test instrumentation under an assist program for Astro.

D. N. Kahler, SD group engineer coordinating the task, said that as many as 70 SD instrumentation experts have been engaged in design of both the instrumentation and launch control systems for Atlas research and development sites, five in Florida and two static-test sites at Sycamore.

(Centaur launching site, Complex 36, is now in final stages of construction at Cape Canaveral where first launching is slated for 1961. Centaur missile is designed as first U.S. flight vehicle capable of putting four-and-a-half ton payloads in orbit around the earth, or to send half-ton payloads to Venus and Mars. **Convairiety**, April 27, 1960.)

Landline instrumentation will enable operators in the blockhouse to watch 300 of the several thousand operations during countdown and launch, explained Kahler. Which operations are chosen for recording will depend upon the type of test conducted. Remote-control television cameras spotted around the missile will take close-up and all-over views of actual takeoff from 20 to several hundred feet away.

"Design of instrumentation systems, and construction of this model, demonstrate the capabilities within our engineering flight test instrumentation group. Many years of experience in instrumentation for our interceptor program have been utilized during this assist to our sister division," said Kahler.

N. M. Reed, also group engineer at SD, is systems engineer for launch control portion of the program. Nine SD instrumentation engineers are assigned to Astronautics site to coordinate the project.

Model of the Centaur launching site is going to landline instrumentation function at Astro (Dept. 545-7) under Don Wilson, group engineer, where it will be set up as a three-dimensional "picture" of the actual site. Used as a visual aid, it will show physical location of equipment and help in changes and installation plotting.

Roofs of both blockhouse and launch service building lift off to reveal placement of equipment.

"I cannot praise highly enough the particular work of Karl Busch's group in constructing the model," said Kahler. "Every minute detail was worked out as perfectly and realistically as possible."

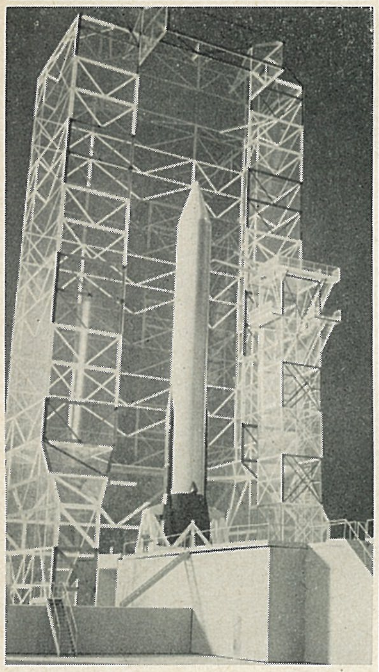
It took Busch and his assistants, Jerry Blumenthal and Bill Polakowski (both Dept. 15-6), two-and-a-half months to complete the miniature launching site. In charge of laying out the design was William Harger of Convair SD and Stan Hirsch of Astro.

SD Engineer's Article Wins Magazine Award

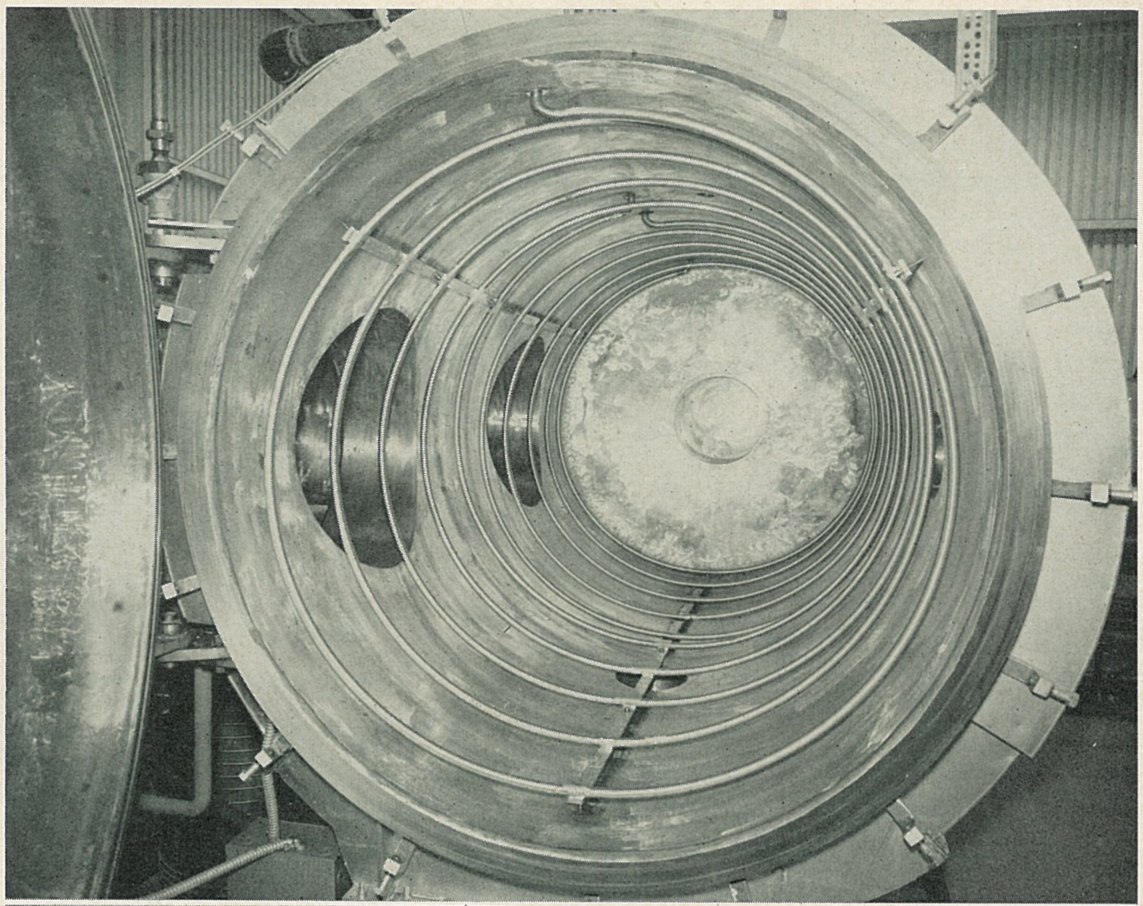
A prize-winning article of A. S. Lermer of Convair SD engineering was published in the June issue of "Hydraulics and Pneumatics" magazine.

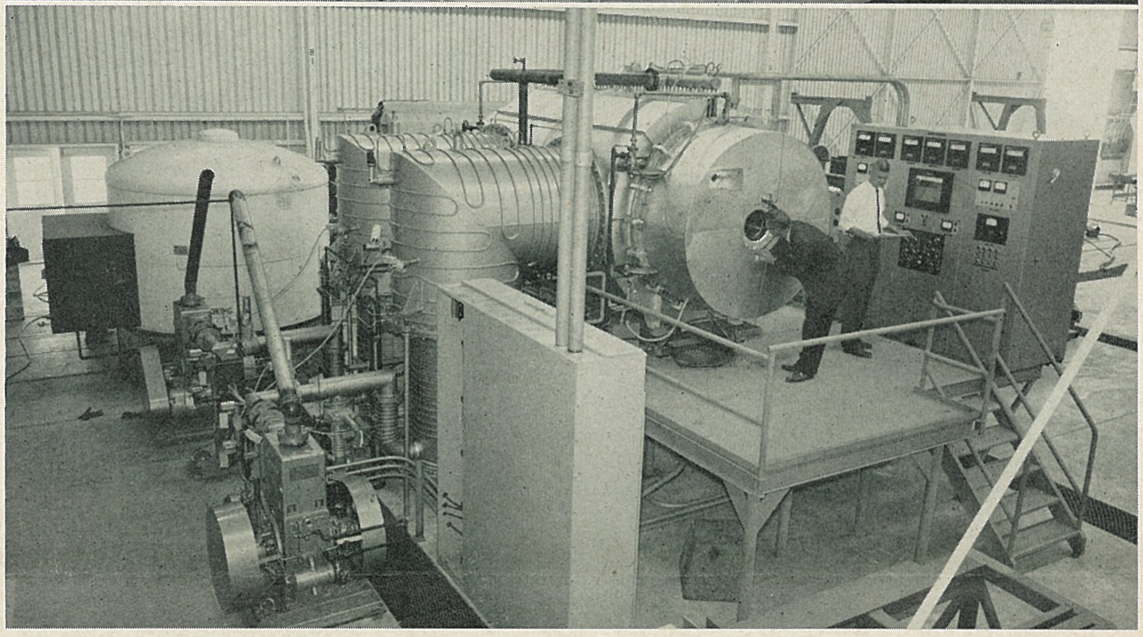
Lermer's paper on "How Temperature Affects Hydraulic Servo Performance" won a $100 award in the publication's 1959 contest. It deals with a newly-developed graphical method of gauging system performance by temperature-response diagrams.

Lermer has been with Convair SD since 1956 as a design engineer.



LIFELIKE — Scaled to one-quarter inch to foot, Centaur missile stands upright in launching tower.





SPACE CHAMBER—At top is inside view of ultra-high-vacuum test chamber now going through acceptance tests at Convair SD before actual use in space testing. Stainless steel cylinder is 10 feet long; five feet in diameter; will simulate pressure conditions at 250 miles above earth. In lower shot, R. E. Hamilton (looking through porthole in door) and J. R. Bain, research test engineers in SD systems dynamics lab, check out equipment.

Test Chamber, Most Advanced of Size, To Be Used on Space Data Projects

Design of future outer space vehicles and missiles may be determined by data gathered from Convair San Diego's new test chamber, called the most advanced facility for its size in existence.

Due to go into operation this month, the ultra-high-vacuum test chamber is now undergoing acceptance tests in Convair SD systems dynamics laboratories' Bldg. 72 at Plant 1, said M. C. Brady, systems dynamics laboratories chief.

Designed to duplicate actual space conditions at altitudes as high as 250 miles above the earth, the chamber and related equipment was built by National Research Corp. and installed at Convair SD at a cost of $90,000. The entire system consists of a 10-ft. long, 5-ft. in diameter stainless steel chamber; pumping system to create ultra-high vacuum conditions within the chamber; 1200-gallon tank for liquid nitrogen used on cold traps within the duct lines to condense air and gas vapors; and a control panel. Incidentally, liquid nitrogen is furnished by Liquid Carbonic Division of General Dynamics Corporation.

Within the vacuum chamber itself, range of temperatures is from minus 300 degrees to plus 700 degrees Fahrenheit, depending upon altitudes simulated.

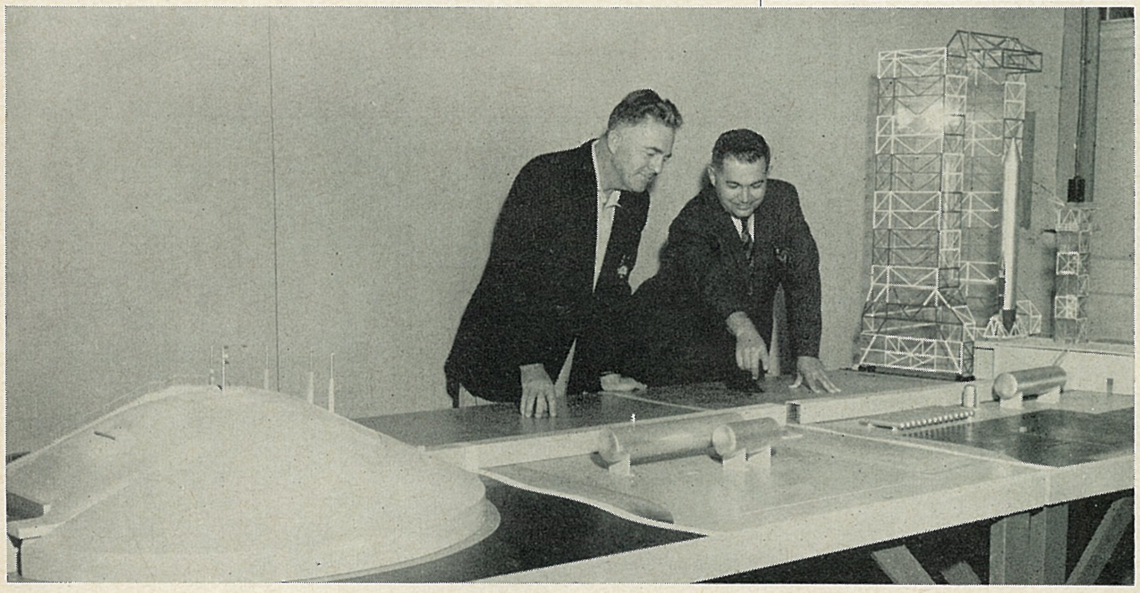
"By subjecting hardware and equipment specimens to low pressure conditions found in outer space, we can tell exactly what effect lack of pressure, or sudden change from pressure at sea level to low pressure in space, will have upon materials and instrumentation in our planned space vehicles and satellites," explained J. R. Bain, research test engineer responsible for facility utilization.

Such space problems as leakage of fluid, extreme vibration, lack of heat transfer, decompression explosions, or rubbing of metals against each other will be studied in the chamber.

"Eventually we plan to use the chamber for human biomedical studies," said Bain. "The cylinder is large enough to accommodate a man so that we will be able to check out different types of pressure suits and gear and reactions of human beings just as if they were floating in outer space."

The new facility may be made available for test programs of other Convair operating divisions, said Carl Rother, systems dynamics laboratories supervisor. (Astronautics has a smaller facility of a similar nature for space tests.)

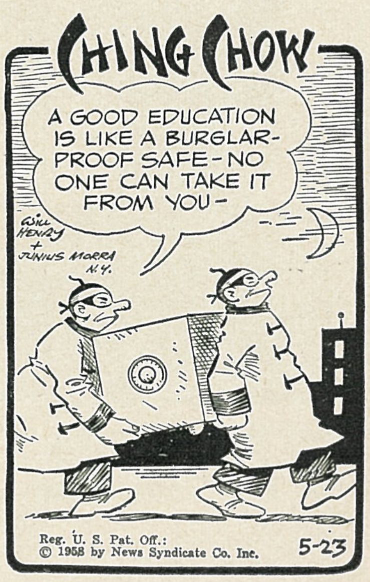
R. E. Hamilton, research test engineer of systems dynamics laboratories, is in charge of acceptance tests now in progress.



"COMPLEX 36"—Karl Busch of SD service illustrations training aids and D. N. Kahler, SD group engineer, point out cable trays (which conduct many instrumentation cables through 800-ft. tunnel) faithfully reproduced in miniature Centaur launching site built at SD for Astro. Note periscopes on roof of concrete and sand blockhouse at left.

STATE SENATOR TOURS SD LINE

State Senator and Mrs. Fred S. Farr toured jet transport production areas at Convair SD June 23. Senator Farr, who represents the 25th District, Monterey County, Calif., was conducted through the plant by Keith Blair, SD chief librarian.



Former Polish Officer Recalls Life of Danger

Few works of fiction can compare in drama, action and suspense with the real-life story of Convair Pomona's Stanislaw M. Brejnak (Dept. 6).

Brejnak, then an officer in the Polish Air Force, commanded an experimental aircraft squadron when the Germans invaded Poland Sept. 1, 1939. With other members of his squadron, he attempted to evacuate all experimental aircraft from the Warsaw area.

"We attempted to escape into Rumania, but with German planes everywhere, this proved difficult," Brejnak recalled. "We flew from place to place for 16 days, camouflaging the planes each time we landed. We became separated, and we were completely out of contact with the progress of the war.

"On the 17th day of the war, we heard that Russia had invaded Poland from the east, but did not know whether or not they were friendly to us. When Russian tanks opened fire on us, setting fire to my plane and killing my mechanic, I had an answer."

Brejnak escaped by running into some nearby woods, and started working his way south in an attempt to cross over into Rumania. Two days later he was surrounded and captured by Russian troops. They searched him and took his pistols.

"Then they told me to go, and I started running. The Russians started shooting at me, and I expected to be hit at any minute. Then I looked back and saw that one of the Russians was chasing me, and he was so close that the others were apparently afraid of hitting him."

After evading the Russians, by hiding in bushes for a full day, Brejnak traded clothing with a farmer. Three-and-a-half days later, weak from hunger, he reached the Rumanian border. After almost drowning while swimming the Dniester River, he made his way to Bucharest, and from there eventually to France, where he rejoined the Polish Air Force.

From France he was sent to England, where he was assigned as flight commander of the 301st Polish Bomber Squadron, under British command. This unit made numerous sorties over the French and Belgium coasts. Then the squadron was given Wellington bombers, and Brejnak participated in 19 raids over German cities including one on Berlin. This was the only Polish sortie on Berlin, incidentally, and only two planes, one of them Brejnak's, managed to get through to the city.

In 1941 Brejnak was given command of the 307th Polish Night Fighter Squadron, a unit which received the personal congratulations of the Duke of Kent for shooting down four German bombers during a raid on Exeter on May 3, 1942. Meanwhile, Brejnak attained the rank of wing commander, the equivalent of lieutenant colonel.

Following command of this unit, Brejnak was sent to the Polish Air Force Staff College, and following graduation was assigned to the Polish general staff as deputy chief of operations, with the rank of group captain, the equivalent of full colonel. He remained with the Polish Air Force until it was completely disbanded.

Brejnak's military career began in 1922, when he entered Korpus Kadetow (an officers' preparatory school) in Modlin. He later attended the Polish Air Force Officers' School and a year after receiving his wings in 1929 he entered the Engineering University of Warsaw, and six years later was graduated with the equivalent of a master of science degree in aeronautical engineering. He was then assigned to the Polish Air Force Experimental institute as chief of experiments with prototype aircraft, remaining there until the outbreak of the war.

Brejnak has a vivid memory of seeing Hitler before the war started. He was spending his vacation in Munich in 1937 to study the German language, and Hitler was also in the city in connection with the celebration of the 2,000th year of "German culture." Brejnak was seated in the cafeteria of the "House der Deutschen Kunst," when Hitler entered and was seated at a table, with members of his staff, only a few yards from Brejnak's table. He remembers that Hitler's eyes were never still, and kept moving from one part of the room to another.

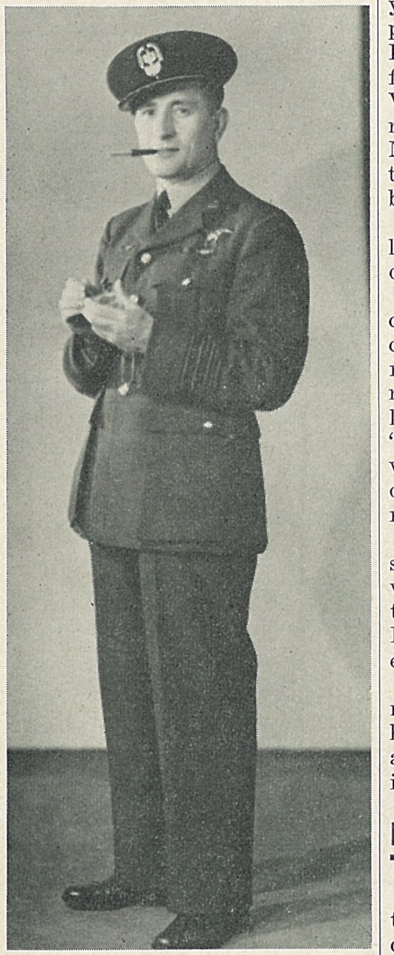
Following his release from the Polish Air Force in 1949, Brejnak came to the U. S. and worked at various positions in New York for several years. He became a design engineer for Cessna in Wichita, Kas., in 1955, and two years later accepted a similar position with Rohr Aircraft in Riverside, Calif. He later transferred to Rohr's plant in Chula Vista. He joined Convair Pomona as a design engineer last March, and is currently assigned to the Redeye Missile project. He became a U. S. citizen in 1958.

Last year Brejnak visited Poland for the first time since his dramatic escape 20 years earlier.

"I found that Warsaw was changed to a beautiful modern city, still with some existing ruins, but that a lot of sentimental value carried through Polish history was lost," he said. "I also found that free enterprise was rapidly disappearing because of high taxation and government regulation."

Although his long years of service with the Polish Air Force would entitle him to a full military pension if he returned to Poland to live, Brejnak doesn't even consider the possibility.

"Unquestionably freedom is the most precious aspect of living," he explained. "I am happy again, and I appreciate very much being an American citizen."



WAR DAYS — This was Pomona's Stan Brejnak as he looked while serving as group captain (equivalent to our colonel) on general staff of Polish Air Force.

Beauty Title Awarded To Convair Daughter

"Miss Realtor of El Cajon" is the title held by a Convair SD daughter.

Carol Lynn McLeod, 17, daughter of R. J. McLeod, Plant 2 inspector, was chosen from 18 contestants as beauteous representative of El Cajon's board of realtors. She is a senior at El Cajon High School.



SETS RECORD — Angelo Maracchini proudly displays bowling ball which rolled 698 singles record to set new high in New Mexico keg tourney.

HOLLOMAN BOWLER SETS STATE RECORD WITH 698 SERIES

A Convair bowler at Holloman AFB, N. M., shattered the state's singles record in the recent New Mexico State Bowling Tournament in Alamogordo.

Angelo Maracchini, assistant foreman in Convair's material section at Holloman, rolled a 698 series to take top honors in the Class B division and set a new state record. He also was high man in all events with a 1,765 pin total.

Maracchini bowls regularly with Convair Delta Darts in the Industrial League at the New Mexico base.



BIG CROP — Ed O'Brien of Convair SD Dept. 31 admires stand of sunflowers rising from rocks to decorate Convair's facility at seaplane ramp. Tallest is 7½ feet high with foot-across flower.

Astro Lensmen Lead in Display

More than 10 per cent of the photographs chosen for display at the 8th Annual Western State Print Exhibition just concluded in San Francisco were the work of Astronautics photographers.

Some 900 prints were submitted by professionals from the western states and Canada, from which 90 were selected for display.

Photos by still photo lab cameramen Keith V. Adams, Walter W. Gault, Henry S. Kierstead, Bob Ries, Jack Stevens and T. G. Winfield were shown.

Later this year the pictures will be exhibited at the Los Angeles County Fair, and in Chicago at the National Convention of Professional Photographers of America.

Four Members

Earle Family Boasts Deep Roots In Airplane Business at FW

The B-58 Hustler is a real family project for the Earle family (three brothers and one of their wives) at Convair FW. And so was the B-36.

One of them even worked on the B-24 and B-32.

They represent 50 cumulative years of service with Convair FW, and between them they have a hand in selling, contracting, accounting and installing delicate electronic equipment for the Hustler.

The veteran of the family is C. C. "Bud" Earle, who has worked here 18 years. He's now in Dept. 75, electronic systems. Next comes T. J. Earle, whose Dept. 19-2 business is accounting. T. J. is a 13-year man at Convair FW.

Working in aircraft acceptance, Dept. 11-2, is J. A. Earle, who adds 10 years to the half-hundred total. His wife, Margie, has been at Convair FW nine years. She's a secretary in Dept. 11-0.

To complete the family cycle, the Earles report that the wives of both C. C. and T. J. have been Convair employees in the past!

BEARSS FAMILY COUNTS THE YEARS

Another remarkable Convair family is that of Jack Bearss and sons, who together have served more than 60 years.



Jack Bearss

Bearss Sr., 63 (now in Convair SD's template shop), made the move from Buffalo, expects to get his 30-year pin this fall.

Son Glenn, 42, machine shop-supervisor at Convair Pomona, has piled up almost 25 years of Convair service. In other words, he has been with Convair since he was 18!

Another son, John, 35, is a comparative youngster. He is presently completing his ninth year at Convair SD's Plant 2.

According to Jack Sr., the record could be even more impressive. "I first joined the company in 1924," he said, "then left for a short time, enough to interrupt the continuous service schedule."



FIFTY YEARS—Many a Convair FW airplane has been built during combined 50 years' service time of Earle family of Fort Worth. C. C. Earle, left, reminisces with model of B-32, while T. J. Earle, Margie Earle, and John Earle, left to right, inspect B-58 model.

Blind Dispatcher at SD Is Expert Operating New Teletype System

Receiving and sending repair orders at the rate of over 300 a day at Convair San Diego are two dispatchers operating a streamlined teletype system in plant engineering, Plant 1.

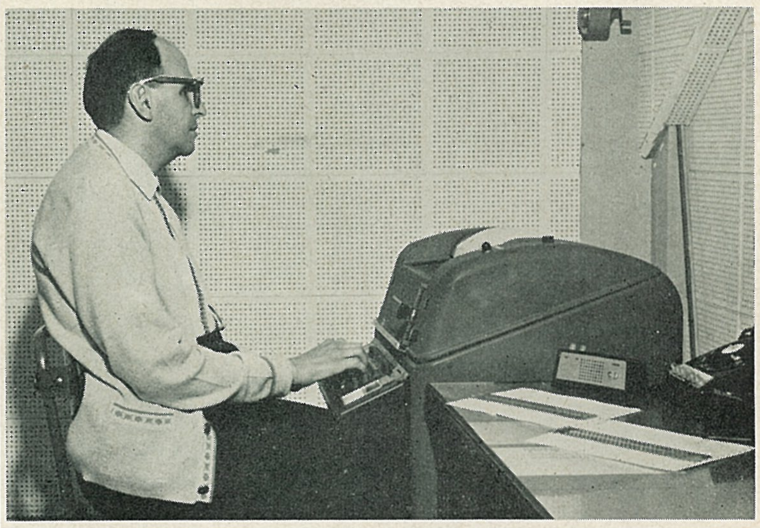
Phil Leonard, SD teletypist, blind since childhood, moved to Plant 1 last summer to preside over the teletype sending machine installed by Western Union. Dispatcher at Convair SD since February, 1953, Leonard is adept at handling the four incoming telephone lines, two from Plant 1 and two from Plant 2. He says tone of rings tells him which plant the calls are from.

He processes each call as it comes in, sending information to Plant 1 or 2 maintenance areas, where orders are received and processed. Only in case of long lists of equipment numbers does he ever slow his receiving operations to take notes in Braille.

Recently assigned to teletype dispatch operations on second shift is Goldie Coates, who also joined Convair SD in 1953.

Since the first of this year, 35,000 dispatches have been received and processed for repair of plant machinery, equipment, and buildings, said E. W. Manning, work control supervisor.

Manning passes along the following suggestions to facilitate dispatching of repair orders: information should be given in this order—location (building, floor, column, mezz, or room number); name of caller, department, extension; inventory number of equipment or machinery to be repaired, and service requested.



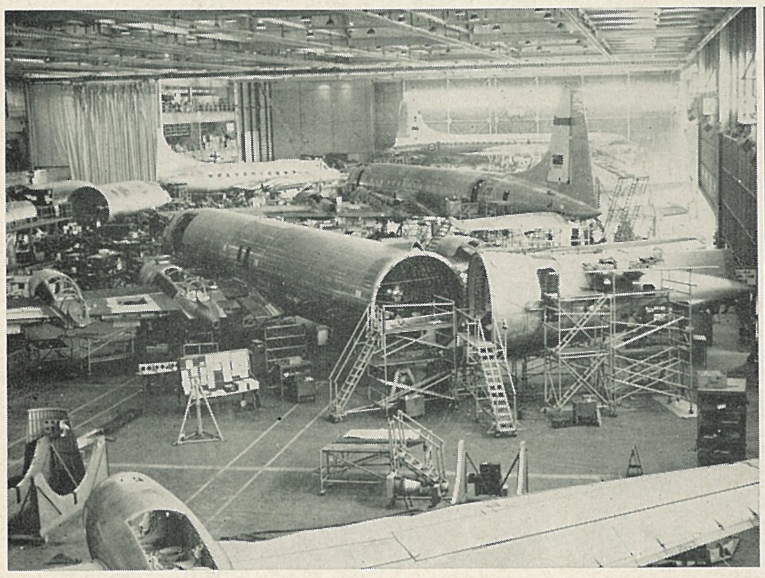
NEED REPAIR?—Just put in a call to Phil Leonard, Dept. 25 dispatcher, blind since childhood, who taps out orders on teletype machine to maintenance areas in both Convair SD plants.

NEWS FROM OTHER DIVISIONS OF GENERAL DYNAMICS CORP.

General Dynamics Corporation, created in April, 1952, as successor to Electric Boat Company, is composed of seven divisions and a Canadian subsidiary, Canadair Limited, of Montreal, airframe builders. The divisions are:

Convair, head offices at San Diego, Calif., aircraft, missiles and space systems.
Electric Boat of Groton, Conn., submarines.
Stromberg-Carlson, of Rochester, N. Y., telecommunications, electronic equipment.
Liquid Carbonic of Chicago, Ill., carbon dioxide producer, industrial and medical gases.
General Atomic of San Diego, Calif., nuclear research, development, production.
Electro Dynamic of Bayonne, N. J., electric motors, generators.
Material Service Division, Chicago, Ill., building materials, concrete products and coal.

* * *



SWING-TAIL—First swing-tail ever made was attached to airframe of Canadair Forty Four recently at Montreal. First completed airplane will roll off assembly line in August with deliveries to customers (Flying Tiger Line, Seaboard & Western Airlines, Slick Airways) beginning in January, 1961.

Electric Boat Wins Contract

WASHINGTON, D. C. — The Navy has awarded contracts to Electric Boat and the New York Shipbuilding Corp. for construction of four nuclear powered attack submarines.

The Electric Boat contract for three submarines has a total fixed price of nearly $60 million. On a unit basis this price is the lowest ever obtained by the Navy for construction of nuclear powered attack submarines. The New York Shipbuilding contract for one submarine is for $26,133,753.

Four firms were invited by the Navy's Bureau of Ships to submit proposals for the construction of these submarines and all four did so. The firms receiving contracts submitted the lowest proposals.

The four submarines to be constructed under these contracts will be of the Thresher (SSN 593) class. They will have a length of 274 feet and displace 3250 tons. These submarines, which will operate effectively against both submarines and surface ships, will have a streamlined configuration such as the USS Skipjack.

General Atomic Europe Formed For Nuclear Projects Abroad

ZURICH, Switzerland — Establishment of a new European-wide company to be known as General Atomic Europe for the creation of advanced projects and products in the field of nuclear energy has been announced.

General Atomic Europe will be affiliated with General Atomic Division of General Dynamics Corporation. Present plans call for location of offices and staff here starting in the fall of 1960.

The programs of General Atomic Europe will be consistent with European technical developments and with European requirements. Affiliation of the new company with General Atomic Division will assure an appropriate exchange of the most advanced nuclear science and technology with General Atomic Division's John Jay Hopkins Laboratory for Pure and Applied Science in San Diego which is the world's largest privately-owned laboratory engaged in diversified nuclear research.

The objective of these programs will be the achievement of the most advanced nuclear products, and particularly the bringing about of truly economic nuclear power in Europe. The development of high temperature, gas-cooled central station power reactors systems in the 100 megawatt region will receive primary emphasis. Such a system would be a logical evolution, he said, of the 40 megawatt high temperature gas-cooled reactor (HTGR) prototype plant which General Atomic Division is now building for Philadelphia Electric Company and 52 other leading U.S. electric utility companies comprising the High Temperature Reactor Development Associates, Inc.

S-C Will Introduce 'Illuminated' Phone

ROCHESTER, N.Y.—A compact new extension telephone is now in production at Stromberg-Carlson Division and will be available to the independent telephone industry from all branch warehouses on July 15.

The new instrument, called "Petite," is modern in design, and available in five decorator colors—white, beige, pink, blue, and turquoise.

The "Petite" has a compact illuminated dial, with numbers and letters inside the finger wheel. The dial light glows softly when the handset is in the on-hook position, and then lights up brightly, for ease of dialing in the dark, when the handset is lifted from the cradle.

$5 Million Contracts For CF-104 Placed

MONTREAL—Further CF-104 sub-contracts worth nearly $5 million have been placed recently by Canadair Limited of Montreal, with companies in Quebec and Ontario.

The CF-104s will be used to replace Canadair Sabre 6s in service with the RCAF Air Division with NATO forces in Europe. The first Canadair CF-104 is due to fly next spring and is similar to the F-104G ordered for the West German, Belgian and Netherlands air forces. Like other versions of the F-104, the CF-104 is capable of flying faster than twice the speed of sound.

Stromberg-Carlson Wins Safety Honor

ROCHESTER — The National Safety Council has presented Stromberg-Carlson Division the Award of Honor for completing 4,330,000 manhours without a lost-time accident.

Finland Orders TRIGA Reactor

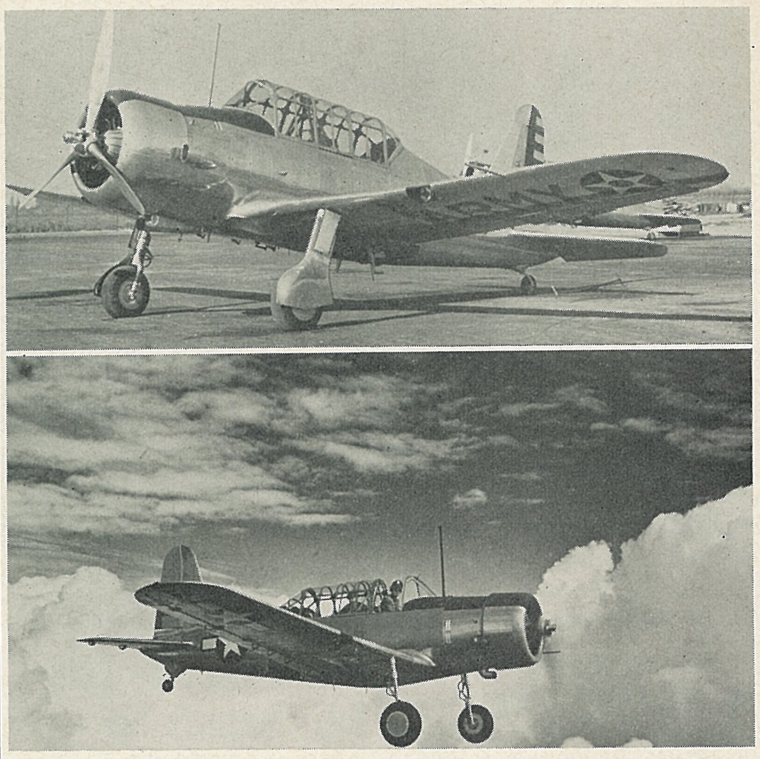
HELSINKI, Finland—The Finnish Ministry of Commerce and Industry has signed a contract with General Dynamics for Finland's first atomic reactor, which will be fueled with uranium drawn from the International Atomic Energy Agency's world "pool" of fissionable material.

Dr. Frederic de Hoffmann, senior vice president of General Dynamics and president of General Atomic Division, signed the contract.

The reactor will be a versatile and inherently safe TRIGA, conceived and developed by General Atomic at its John Jay Hopkins Laboratory for Pure and Applied Science in San Diego. The TRIGA will serve as the nucleus of a new reactor research and training center at Otaniemi, near Helsinki. Installation will be completed in 1961.



EXECUTIVE CONFERENCE—Among executives attending General Dynamics board of management meeting at Convair Fort Worth June 22 were, from left: C. Rhoades MacBride, Dynamics executive vice president; Earl Johnson, president of General Dynamics; W. P. Gullander, Dynamics executive vice president; Frank W. Davis, Convair vice president and FW manager; and August C. Esenwein, Convair executive vice president.



TRAINERS—In top photo is BC-3 with which Vultee won USAC competition. Production contract, however, went to North American. "BC" stood for "basic combat," a short-lived class of late '30s. In lower photo is Vultee BT-13 Valiant. Prototype was delivered to Wright Field in March, 1940, and production ships followed three months later. More than 11,000 were built at Downey and most pilots who learned to fly in World War II used them. Last went out of service in 1950. No. 1 production ship (tail number 0811) began service at Kelly and late in 1943, when 10,000th Valiant came off Vultee production line, "Old Eight Eleven" had logged 3,600 hours, flown a half million miles, worn out six engines!

Many Designs

New Executive Team in Action Following Jerry Vultee Death

(This is installment No. 38 in Convairiety's continuing history of Convair and preceding companies.)

At the time of Jerry Vultee's death in an airplane crash Jan. 29, 1938, he held the titles of vice president and chief engineer of Vultee Division of Aviation Manufacturing Corp. He was succeeded by his assistant, Richard Palmer, who brought forth a stream of new military designs.

Meantime, Emanuel-Girdler syndicate had acquired E. L. Cord's stock late in 1937 for $2,632,000. Over the course of the next few years a team of veteran industrial executives was brought in to run the company.

The first was Richard W. Millar, a West Coast investment banker and private pilot. For several years he had been a director and member of the executive committee of Douglas Aircraft. He was installed as president when Vultee Aircraft was incorporated Nov. 14, 1939. Then came Harry Woodhead, president of the Republic Steel subsidiary, Truscon Steel. He resigned from Truscon to take the presidency of Aviation Manufacturing Corp. in April, 1940, and in August left that post to become Vultee Board chairman. He was elected president of Consolidated in December, 1941, and of Vultee in 1942, after Millar resigned.

Charles W. Perelle, who had been Boeing production manager, was made general manager at Downey. Just after the war started, an executive who had been absent from the aircraft scene for 20 years became vice chairman of the Vultee board. This was G. M. (Monte) Williams, general manager of the Dayton-Wright Airplane Co. in World War I. (During the intervening years he had served successively as president of Wire Wheel, Marmon Motor Car and Russell Manufacturing.)

The company received its first Army order in the summer of 1938—for seven V-II type attack bombers, designated YA-19. This was the fruition of Jerry Vultee's salesmanship, and Engineer Palmer hailed the contract with an article in the plant magazine, the "Vultair." "Performance of this contract will be a liberal education, with the Air Corps as teacher," he wrote, "and if we earn a diploma pasted with gold stars, we pass to the next grade—future orders. Personally, I haven't the slightest doubt that every man will bust his ankle to accomplish this."

In time, the directors may have wondered if it was necessary to break the bank account, too. The company lost $60,000 on the YA-19 contract. Millar then entered eight military design competitions in a row—running the cumulative engineering losses to nearly a half million dollars—without scoring a success.

Deciding to concentrate upon training craft, the company made an all-out effort when the Army announced a competition for an advanced trainer. Palmer and his staff moved their beds into the plant and worked around the clock. From first sketches to test flight, the XBC-3 was completed in 88 days. This time the army bought the plane, for the bare cost of $191,000, but awarded the production contract to North American.

"It was tough to take," Millar recalled afterward. "Our hearts and souls went into that plane."

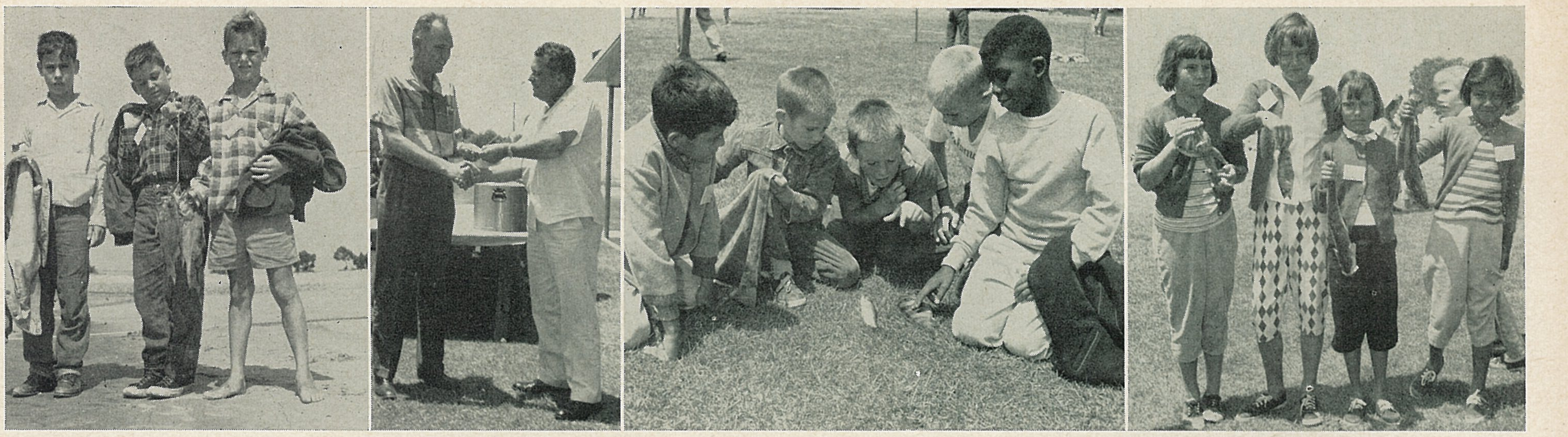
The payoff finally came in August, 1939, when Palmer's design for a basic trainer won a whopping contract of 300 BT-13s. This was to become the standard basic trainer of World War II. By the time the first production order was finished in the winter of 1940, Vultee was tooling up to turn out 300 trainers a month. Wartime production finally reached a total of 11,537.

As a counter to the German Stuka, Palmer designed for the British a dive bomber that brought orders aggregating $90 million in 1940-41. This was the Vengeance, designated A-31 and A-35. It was christened by Lady Halifax, wife of the British ambassador, in ceremonies at Downey in the summer of 1941.

Palmer's design for a fighter, the P-66 Vanguard, won an $11½ million order from Sweden in February, 1940.



"Let's face it—the season's over."



KIDS HOLIDAY—More than 150 underprivileged children turned out for June 25 Mission Bay fishing derby sponsored by CRA Fishing and Boating Clubs at SD and Astro. There were plenty of successful anglers happy to exhibit catches for cameraman Joe Kayda of the CRA Astrolens. In second from left photo Bob King, Astro commissioner, receives free passes for children from George Graves of Mission Bay Sportfishing.

Romance Blossoms In SD Flight Dept.

Romance of two Convair SD production flight people culminated in a June 18 wedding when Grace Crower became the bride of Ralph T. LeVine, flight captain, in Chapel of the Roses at Chula Vista. They are making their home in San Diego. Mrs. LeVine had been secretary to W. B. Harwell, chief of production flight, the last two-and-a-half years.

Log Book Entries

Service Emblems

SAN DIEGO

Service emblems due during the period July 1 through July 15.

Twenty-year: Dept. 1-23, D. S. Devlin; Dept. 4-0, Frances F. Terpening; Dept. 6, G. F. Foelsch, Seth Gunthorp, F. B. Lubo, R. C. Pasek, L. C. Wilson; Dept. 7-10, Raul Castaneda.

Dept. 25, D. H. Cunningham, A. H. Damarus, R. J. Saunders; Dept. 31, A. O. Camp, F. J. Cech, W. M. Clapp, H. M. Jones, R. K. Wharton; Dept. 95-0, R. H. McManus.

Dept. 100, W. S. Rye; Dept. 116, E. A. Tillman; Dept. 129, F. A. Yarick; Dept. 133, J. D. Volkov Jr.; Dept. 136, H. W. Arnold; Dept. 190-1, T. L. Cash; Dept. 197-4, P. J. Ferrara; Dept. 232, C. R. Mansfield; Dept. 233, G. W. Marx Jr.; Dept. 280, C. W. Piper.

Fifteen-year: Dept. 1-31, H. T. Brooks; Dept. 6-04, K. B. Reid; Dept. 7-40, Wilma M. Stevens; Dept. 116, Grace D. Welburn; Dept. 171, R. J. Bourcy; Dept. 180, W. S. Donaldson; Dept. 218, Charles Prachyl; Dept. 230, W. L. Lawson; Dept. 400-2, G. F. Lacy.

Ten-year: Dept. 6, J. A. DeCosta, J. J. Weckerly, L. D. White; Dept. 8-1, J. A. Barton; Dept. 15-4, D. E. Stouffer; Dept. 25-1, W. T. Evans, D. H. Garner; Dept. 31, E. T. Flor, W. B. House, T. A. Wray; Dept. 34, R. W. Richardson, G. L. Selesko.

Dept. 93, Evelyn A. Hayes, Margaret G. Stewart; Dept. 102, Estelle S. Jorgensen, Ismael Ortiz; Dept. 110, R. R. Turner; Dept. 115, J. B. Denton, L. J. Kokal; Dept. 120, Helena B. Kerns; Dept. 123-0, M. L. Goldman; Dept. 136, Benjamin Hanaike Jr.; Dept. 139, Esther G. Lovato.

Dept. 143, W. P. McFadden; Dept. 144, Jerelyn L. Morstad; Dept. 146, B. L. Coonce; Dept. 148, R. P. Contreras; Dept. 149, I. E. Whitbey; Dept 160, O. J. Bazoon Jr.

Dept. 171, W. A. Arias, R. E. Cook, R. E. Gschwind; Dept. 180, K. F. Cash, Antonio Cota-Robles, T. P. Emery, C. E. Plummer; Dept. 188, W. H. Cunyus, L. H. Fry, Maryann Jesienski, Katherine S. Martin; Dept. 192, Dara K. Alexander, Joseph Catalino, L. L. Sowles; Dept. 197, W. L. Curtis.

Dept. 216-0, Margaret Wallace; Dept. 218, Beatrice B. Healey; Dept. 223, E. L. Edwards, J. R. Page; Dept. 230, Ida L. Day, Dorothy G. Lawson; Dept. 231, D. H. Lesher; Dept. 267, F. O. Fernandez.

Dept. 280, H. A. Anderson, J. A. Jacome, J. V. Johnson; Dept. 288, H. R. L. Goss, E. L. Sergent, W. L. Temple; Dept. 292-1, Beatrice C. Mallory; Dept. 400, A. C. Gohs, B. F. Martin.

Promotions

Promotions to or within supervision effective June 20.

Dept. 7-10, Electronics: To senior data systems group engineer, Stanley Rogers.

Dept. 15-5, Customer Service: To service engineering asst. supervisor, S. L. Nichols.

Dept. 95-0, Estimating: To budget supervisor, J. M. Sponagle.

Retirements

BROWN—Fred C., Dept. 31. Seniority date June 21, 1954, retirement effective June 3, 1960.

DESKINS—Ira C., Dept. 401. Seniority date June 19, 1951, retirement effective June 18, 1960.

HEYCOCK—Lewis M., Dept. 401-4, Seniority date Aug. 31, 1950, retirement effective April 8, 1960.

Personals

I am most grateful to Convair friends of my husband, Robert W. Pearce, Dept. 218, for the beautiful floral tributes and messages of sympathy sent at his passing.

Mrs. Robert W. Pearce.

Births

PARKER—Son, Jon Alan, 6 lbs., born June 17 to Mr. and Mrs. A. H. Parker, Dept. 288-8.

NORAD Band to Play July Concerts For Astro and Plant 2

The "Commanders," a 22-piece dance band comprised of members of the North American Air Defense Command (NorAd) concert band of Colorado Springs, Colo., will play two concerts for Convair employees.

At Astronautics the band will perform during the lunch period July 18 near the cafeteria. On July 20 they will play a noon concert in the Plant 2 cafeteria.

The group is directed by Major Mark Azzolina, USAF, and bandsmen are USAF, U. S. Army and Royal Canadian Air Force enlisted personnel.

The Convair performances are part of a week-long series by the "Commanders" in the San Diego area, planned "to broadcast the NorAd message."

NorAd is a joint U.S.-Canadian command which coordinates defense of the North American continent against aerospace attack.

Stromberg-Carlson Names New Outlet For Discount Buys

Stromberg-Carlson announced recently the appointment of Borgens Music Co., Seventh and Broadway, as franchise holder for downtown San Diego.

Added to those already in existence in the area, this totals six outlets through which Convair employees at SD and Astronautics may buy Stromberg-Carlson equipment (stereo high fidelity phonographs, AM-FM radio-phonograph combinations) at a substantial discount. Others are Scotty TV Stores at 8118 La Mesa Blvd., La Mesa, 3050 University and 4508 Cass, Pacific Beach; Hamilton's at 7865 Girard, La Jolla, and High Fidelity House, 1635 University.

Employees are advised to inspect equipment at show rooms, then contact employee services at SD or Astro for certificates which will authorize discounts.

ASTRO BASEBALLERS DEFEAT TEAMSTERS

Astro baseball team has downed Teamsters' Local #36 and the Naval Station "Zippers" to remain undefeated in league play.

Leading the Astro squad in batting averages are Bud Mechman with .875, Garfield Winters with .715, Percy Gilbert with .666, and Bill Murphy with .500.

Astro meets Oceanside on July 10, Princess Homes on July 17, and Ryan on July 24. Games start at 2 p.m. at Golden Hills.

Archers Firm Dates For Shoot, Meeting

Convair SD Archery Club has scheduled a shoot and meeting during the next two weeks in July.

The shoot is slated Sunday (July 10). It will start with registration at 9:30 a.m. at the Singing Hills Range. A club meeting will be held Thursday (July 21) at 7:30 p.m. in the CRA Clubhouse, Pacific Hwy.

150 Kids 'Live it up, Fish it up' During CRA-Sponsored Excursion

More than 150 underprivileged children were guests of Convair SD and Astro Boating Clubs June 25 on a day-long fishing and boating excursion on Mission Bay.

Youngsters from San Diego Boys' Clubs, National City Girls' Club, San Diego Children's Home, Neighborhood House and the Nazareth Home boarded more than 30 boats supplied by club members.

Turn out was so good that a fishing barge was rented to accommodate 22 children remaining after club boats were filled. The barge and necessary fishing gear were supplied at a reduced rate by Mission Bay Sportsfishing.

After a morning on the bay, the boatsmen and their young wards returned to the Model Yacht Basin for a picnic lunch, games and prizes. Each child was given a silver dollar, and those who caught fish qualifying as "biggest," "smallest," etc., received an additional dollar.

Sports equipment valued at more than $200 was given to the agencies represented. This was donated by area sporting goods firms.

Five bus drivers, three from Convair SD and two from Astro, donated their time to provide transportation to and from the bay for the youngsters. The Prophet Company and Davidson Brothers of San Diego, Inc. picked up the check for sack lunches and refreshments.

"It was a great day," said J. R. King, Astro CRA boating commissioner. "It's difficult to say who had the better time: the youngsters, or boat club members."

E. R. Fink was SD chairman.

'Open' Table Tennis Tournament Will Be Played July 10 in Park

A table tennis tournament open to all players in San Diego County will be sponsored by Convair SD July 10 at the Federal Bldg. in Balboa Park. Play starts at noon.

Entries must be turned in to Chairman Lee Majel before 11 a.m. at the Federal Bldg. on the day of play. Fees of 50 cents for civilians and 25 cents for servicemen may be paid at registration.

The tournament committee insists that dress will be solid black or Navy blue T-shirt or shirt, without exception. USTTA rules will prevail, unless waived by both players. No sponge rubber paddles will be permitted.

Winners and runners-up in all events will receive trophies. Events will include men's "A," "B" and "C" singles, men's doubles and women's singles. Majel may be reached at CO-4-3213.

Registered Skeet Shoot Set July 17

Convair SD-Astro Gun Club will conduct its first registered skeet shoot Sunday (July 17) starting at 9 a.m. at the CRA Range, Gillespie Field.

The All-Bore, 50-target program will be held under auspices of the National Skeet Shooting Association.

All targets will be registered with trophies planned for winners in Class AA, A, B and C. The CRA Gun Club-sponsored event will be open to the general public.

Jack Swank, SD commissioner, reports that the next club meeting will be held Tuesday (July 12) with the program starting at 7:30 p.m. in the CRA Clubhouse, Gillespie Field. A film is scheduled as well as free refreshments and a raffle.



SUMMER FUN—Convair SD's Bert Horner joins Astro's Laura Donnelley and Dolores Swaney in scene from "Silver Whistle," playing through July 17 at Mission Valley Playhouse.

Juanita Wilson Heads Delta Toastmistresses

Juanita Wilson (SD Dept. 190) will be installed as president of the Delta Toastmistress Club tomorrow night (July 7) at a 7:30 dinner and installation ceremony in the Redwood room at Town and Country Hotel.

Seated with her will be Sunny Cooper (AF), vice president; Lee Betts (wife of Les Betts, SD Dept. 4), secretary; Mary O'Shay, treasurer. Roxanne Miller (Dept. 1-65) was named club representative.

Officers were elected at the club's regular meeting June 28 at Calabrese's Restaurant.

CRA Cuts 'Can-Can' Ticket Cost to $1

Reduced price tickets to the movie spectacular "Can-Can" go on sale today (July 6) at all Astronautics employee services outlets.

All seats at Loma Theater, Rosecrans Ave., have been reserved by CRA Women's Activities Council for one performance only at 5 p.m. Sunday, July 24.

House capacity of 800 tickets normally costing $2.50 and $3, will be sold through employee services for $1 each.

Gmyr Champion In Match Play For Golf Club

Stan Gmyr (SD Dept. 15) dethroned Al Reiter (SD Dept. 115), last year's champion, six and four in the final round to win the Convair Golf Club's match play championship.

On his way to victory in the championship flight Gmyr bested Astro golfers Jim Batson, Frank Kemper and Bill Barter. A total of 160 SD and Astro linksmen stroked for honors in 10 flights during the tourney played over three weekends last month.

Entries are now being taken for the Convair Golf Club sweepstakes July 23-24 at El Camino Country Club, located one mile east of Oceanside on Route 78.

Starting times should be placed with Bob Lea, ext. 484 or 409, Plant 2. Deadline is noon, July 20.

In the first flight F. Viering (Astro Dept. 573) clipped "Speedy" Martin (SD Dept. 190) three and two. Richard Tobias (Astro Dept. 541) dropped C. E. Maikish (SD Dept. 190) two and one to win the second flight.

Third flight: Frank Kelly (SD Dept. 6) two and one over Mark Pruitt (Astro Dept. 342).

Fourth flight: Roger Brown (Astro Dept. 130) three and two over Scotty Rutherford (SD Dept. 133).

Fifth flight: Ed Caldwell (SD Dept. 188) five and four over Les Richards (Astro Dept. 597).

Sixth flight: J. Fitzgerald (SD Dept. 6) one up in 19 holes over Frank Robbins, Air Force plant representative at Astro.

Seventh flight: Jim Flitter (SD Dept. 15) five and four over W. Carr (SD Dept. 190).

Eighth flight: Ken Bradley (Astro Dept. 335) two and one over C. Walton (Astro Dept. 181).

Ninth flight: E. Lizarraras (Astro Dept. 331) nine and eight over G. Haupt (Astro Dept. 541). All flight winners and runners-up will receive trophies.

Fencers Will Meet At San Diego Club

Fencing activities for Convair SD and Astro enthusiasts starting this Friday (July 8) will be held at the San Diego Club, Sixth and A Sts.

Free fencing instruction will be offered each Friday, from 7 to 9 p.m., at the new location. No sessions are scheduled for the downtown YMCA in the near future.

Those planning to attend the fencing sessions are asked to make reservations in advance with one of the following club members: Mike Hurley, ext. 2857, Astro; Guy Gurski, ext. 857, Astro; Lowell Dubberke, ext. 2188, Astro; or Ray McNamara, ext. 2351, SD Plant 1.

Club equipment, foils, masks and jackets, are available for use free of charge. A 50¢ fee is required for use of showers and gym. Members are preparing for a special San Diego County Tournament, tentatively planned for September.

CRA Sports & Recreation Convairiety

Season's First Trail Ride Slated July 24, Reservations Required

Riding Club members at Convair SD are urged to get their reservations in early for the first trail ride of the year set for Sunday (July 24).

Present plans call for riding enthusiasts to meet at 9 a.m. at Poway Riding Stables on Twin Peaks Road at 9 a.m., said Foster Kelly, trail ride chairman. Riders will hit the trail at 10 a.m. and meet the chuck wagon about noon. Steak and sweet corn will be on the hearty menu.

As horses are limited, everyone wishing to make the ride is warned to make reservations as soon as possible by calling Sue Props, ext. 2235, or Dorothy Zanarini, ext. 1627, both SD Plant 1. Rental fees for mounts will be reasonable, said Kelly.

Directions and maps will be on notices sent to all Convair SD Riding Club members and posted on CRA bulletin boards throughout the plants.

* * *

All SD Riding Club people and all others interested in horseback riding are urged to turn out for the July 14 meeting of the CRA group at Gillespie Field clubhouse, 7:30 p.m.

Officers for the coming year will be elected and coming activities discussed. Already on tap for summer months are the July 24 trail ride at Poway; fun show and gymkhana on Aug. 21; and overnight camp-out some time in September.

For information call F. R. Kelly, ext. 1174, Plant 1, or C. L. Pogorel, CRA co-commissioner, BR-6-2674 after 5 p.m.

CRA Calendar

(Convair SD Recreation Association has some 40 activities in operation. For information on SD sports, call CRA headquarters, ext. 1245, Plant 1.)

★ ★ ★

ARCHERY CLUB — Shoot Sunday (July 10), 9:30 a.m., Singing Hills Range. Meeting Thursday (July 21), 7:30 p.m., CRA Clubhouse, Pacific Hwy.

BADMINTON—Open play for families Tuesday evenings at 7:30 p.m. in Balboa Park Federal Bldg.

BOWLING—Registration open for winter league keg play. Contact Jim Hayman, HO-6-1262 or Pete Beyrer, ext. 1245, Plant 1.

CAMERA CLUB — Detailed report of photo coverage of 14th annual Soaring Championships at Torrey Pines to be presented at meeting Monday (July 11) at 7:30 p.m., Photo Arts Bldg., Park Blvd. and Village Place.

COIN CLUB — "Youth Night" meeting Tuesday (July 19), 7:30 p.m., Hearing Aid Society Bldg., 3843 Herbert St.

FENCING — Workouts and instruction Friday evenings, 7 to 9 p.m., San Diego Club, Sixth and A Sts. For reservations contact Ray McNamara, ext. 2351, Plant 1.

GARDEN CLUB—Meeting Wednesday (July 13), 7:30 p.m., Floral Association Bldg., Balboa Park.

GOLF — Entries open for Convair Golf Club sweeps July 23-24 at El Camino Country Club. Call Bob Lea, ext. 484 or 489, Plant 2.

GUN CLUB — Meeting Tuesday (July 12), 7:30 p.m., CRA Clubhouse, Gillespie Field. Registered skeet shoot Sunday (July 17), 9 a.m., CRA Range, Gillespie Field.

ICE SKATING—Convair night every Thursday; discount rates between 6:30 and 8 p.m. at Iceland, 6055 Lake Murray Blvd.

MOVIES—Reduced-price movies Tuesday and Friday evenings at Academy Theater, 3721 University Ave.

PISTOL CLUB—Shoot Sunday (July 10), 9:30 a.m., San Diego Police Pistol Range.

RADIO CLUB—Meeting tomorrow (July 7), 7:30 p.m., Harbor Drive headquarters.

RIDING CLUB — Election of officers Thursday (July 14), 7:30 p.m., CRA Clubhouse, Gillespie Field. Poway trail ride and steak fry July 24.

SPORTS CAR CLUB — Meeting tonight (July 6), 7:30 p.m., Balboa Park Natural History Museum.

SQUARE DANCING — Hoedowners picnic Sunday (July 10) at Pecan Park.

SWIM NIGHT — Free family swim night Saturday (July 9), 7-9:30 p.m., at Mission Beach Plunge. Tickets available at employee services and from departmental representatives.

'Grand Prix' Movie On Agenda Tonight For Sports Car Club

A color and sound movie, "1958 Riverside Grand Prix," will be screened at a 7:30 p.m. meeting tonight (July 6) by the Convair SD Sports Car Club in the Balboa Park Natural History Museum.

Members will receive new club-emblem jacket patches and door prizes will be awarded, according to Tommy Jackson, publicity chairman.

More than 40 members and guests took part June 25 in a "Treasure Hunt" event that covered about 100 San Diego County miles.

Awards were made on the basis of maximum number of points acquired per mile traveled. Points were given for correct answers to questions and answers which could be obtained only by visiting specific course locations.

Some questions were worth more than others and a three-hour time limit was set. Thus, picking the best route for most points and least travel decided winning teams.

Bob and Lorrie Dunn placed first with 6.808 points per mile, followed by George Blondin and G. Hancock. Tom and Maryanna Kienholz were third.

Pecan Park Picnic For SD Hoedowners Scheduled Sunday

Annual summer picnic of the Convair SD Hoedowners is on tap this Sunday (July 10) at Pecan Park starting at 2:30 p.m.

An evening of square dancing will follow the 4 to 5 p.m. potluck dinner. Games, prizes and other picnic events have been planned during the afternoon and early evening, Maury Scholz, commissioner, said.

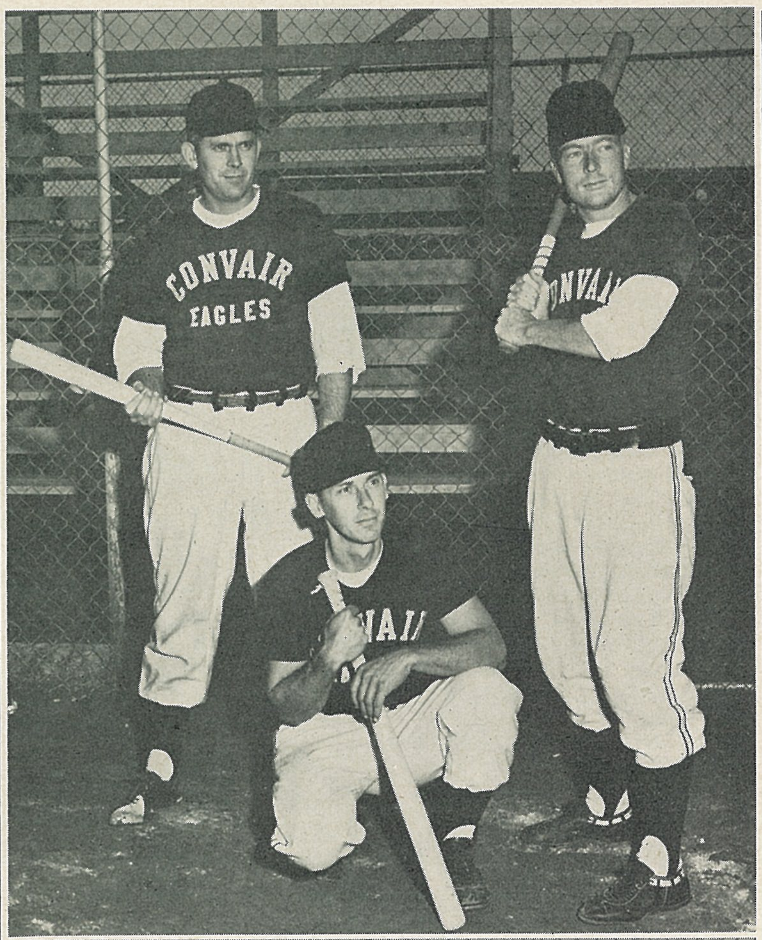
Following husband-wife teams are now handling club offices after an election last month: Roy and Corky Cowley, president; Lou and Connie Charity, vice president; Harold and Delores Hume, secretary; and Wes and Muriel Oswald, publicity.

CRA club representatives to the San Diego Square Dance Association are Maury Armstrong and Stan Fandel.

New Date Arranged For SD Swim Night

Swim night for Convair SD families was postponed a week because of the Fourth of July holiday weekend.

It has been rescheduled for this coming Saturday (July 9) at Mission Beach Plunge, 7 to 9:30 p.m.





IN CONTENTION—Convair SD Eagles are currently waging fight for first place in San Diego Amateur Softball Association league. In lower photo is squad's top battery (from left): Tom Martinez, player-manager; and pitchers, Jack Schneider and Jerry Stryker. Above are some of leading hitters (from left): Al Hooper, center field; Dick Evilsizor, right field; and Curt James, second base.

Convair Eagles Need Win to Tie, Loft, Mockup Lead Shop Play

Convair SD's Eagles with 5 wins and 2 losses needed a victory early this week to tie for first place in the San Diego Amateur Softball Association League.

The CRA softballers were scheduled to meet Rohr in a contest that would give them the opportunity to equal the won-lost record of the league-leading South East Merchants.

Recent Eagles' wins were over La Mesa Engineering, 4-2, and El Cajon, 2-1, in 13 innings.

Convair SD's Rose Canyon nine last week had slipped a few notches in the SCMAF league. Their record stood at won 1½ and lost 3½ because of a tie contest with Quaff Barrel.

In SD shop play, Dept. 6 Loft picked up two more victories in the National League, disposing of Dept. 97 Tabulating, 11-1, and clipping Dept. 6 Flight Test 5-3. In another game Dept. 135 Fuselage beat Flight Test 8-3.

Over in the American League, Dept. 280 Mockup ran their record to four straight with wins over Dept. 6 Dynamics 8-6 (extra innings), and Dept. 137 880 Jets 9-0.

Glider Photo Story Feature at Meeting

Color slides and black and white prints taken at the 14th annual Soaring Championships at Torrey Pines will be viewed by Convair SD Camera Club members at the Monday (July 11) meeting.

The progress report program will be presented by STAF, an organization of amateur photo journalists. It will cover planning and practice that went into coverage of the soaring championships, problems encountered, and future plans for the project.

Prints and slides taken by members at the recent Belmont Park shoot will also be judged at the 7:30 p.m. meeting in the Photo Arts Bldg., Park Blvd. and Village Place.

SD Man to Perform In 'Variety' Show

Discount tickets for "Midsummer Varieties," a two-hour show presented by the San Diego Magic Clubs, are now on sale for 75c (adult price) and 35c (children under 12) at SD employee services, both plants.

Andy Dixon (Dept. 201) will be a featured ventriloquist at the July 16 show in the Horace Mann Auditorium, on 54th St., south of El Cajon Blvd.

Marksman New Pistol Class At SD Shoots

A new Convair SD Pistol Club team was selected this month based on scores tallied in Short National Match events during the past quarter.

Members and aggregate scores are J. B. Carroll (Dept. 3-1), 817; Joe Williamson (Dept. 401-5), 779; Carl Hornburg (Dept. 139), 765; and Ash Bishop (Dept. 401-5), 750.

Starting with the July 10 shoot a new classification, marksman, will be added to the regular master, expert and sharpshooter classes, Bishop, CRA commissioner, reports. Incorporation of the new class will help handle the increased number of shooters at club events, Bishop said.

Pistol shoots are held the second and fourth Sundays of the month at 9 a.m. at the San Diego Police Pistol Range, Federal Blvd. and Home Ave. Trophies or merchandise awards go to two-time winners of any shoot class as well as to marksmen earning positions on the top team.

J. B. Carroll led the master class at a shoot June 26 tallying 295 points. He was followed by Williamson with 289, Bishop with 288, and B. L. Broadway (Dept. 115) with 287.

Carl Hornburg (Dept. 139) paced the expert class with 285 points, trailed by Bill Dittmann (Dept. 6) with 283. Ralph Benson (Mrs. Benson is in Dept. 250) led sharpshooters with 272 points. In second, five points behind, was Dorcus Utter (wife of Arley Utter, Dept. 129).

Hornburg's 242 tally won the Short National Match.

SD Hams Make Field Contacts

Convair SD Radio Club members participated in the annual field day operations June 25-26 setting up headquarters on a site on Kearney Mesa about midway between Montgomery Field and the Astro plant.

J. B. Baker, commissioner, said the club erected two beams, one a 25-foot tower for 10 to 20-meter operations and the other a 20-foot pipe mast.

During the 24-hour field day members attempted to establish as many radio contacts as possible throughout the world. When tabulated the final count will be sent to American Radio Relay League headquarters in West Hartford, Conn.

The national event is an effort to gauge effectiveness and efficiency of radio operations under emergency conditions.

Next meeting of the CRA Radio Club will be held tomorrow (July 7) at 7:30 p.m. in the club headquarters on Harbor Drive.

La Jolla Playhouse Discount Available

A 40 per cent discount off box office orchestra ticket prices for La Jolla Playhouse productions can be obtained with coupons now available at SD employee services, Plants 1 and 2.

Five plays will be presented during the season which started June 27 and will run through Sept. 3. Coupons are good for performances Tuesday, Wednesday or Thursday evenings and the second Monday after opening.

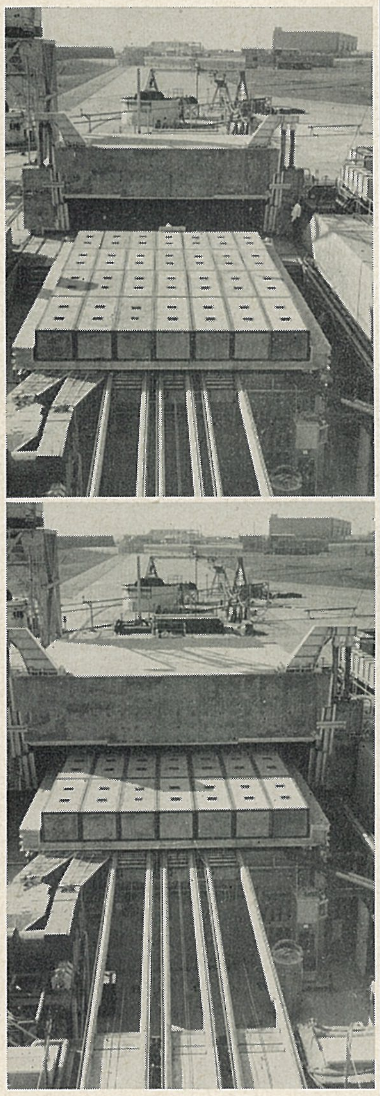
'Paint Your Wagon' Ducats at Discount

A limited number of tickets for the July 24 performance of "Paint Your Wagon" go on sale tomorrow (July 7) at a 30 per cent discount at employee services counters, both plants.

SD folk will be able to obtain $3.50 tickets for $2.45 and spend a musical Sunday evening at the Star-Light Opera performance in Balboa Park Bowl.

Monster 'Lid' Covering FW's Nuclear Reactors

A one-and-a-half million pound "lid" now covers Convair Fort Worth's ground test reactor pool, permitting separation of radiation effects during simultaneous use of two nuclear reactors.



LIDDED—One-and-a-half million lb. concrete lid is shown being pulled over nuclear reactors at FW to contain radiation.

The mobile concrete cover tops the underground dry pool radiation chamber, where the ground test reactor is kept and used.

An aircraft shield test reactor, an above-ground variety, during test is kept in a nearby tank. But because of the concrete cover, an effective shield against both gamma and neutron radiation, both reactors can be operated at the same time without confusion about which reactor is the source of radiation measured.

Another advantage is that test personnel can now remain directly outside the control room during reactor runs, whereas this area used to be restricted during that time.

Moving on 104 wheels, the "lid" can be transferred from full-off to full-cover position in eight minutes. After tests, a mere push of the button and the 332 cubic yards of concrete are removed in the same length of time.

The force pulling the cover is a Convair FW veteran — the old puller assembly from the B-24 assembly line, revamped and repainted.

The entire north end of the pool cover is a door weighing 93,000 lbs. by itself. It is raised vertically by hydraulic jacks when the cover is moved over the pit. This allows the cover to move freely over vertically-extending parts of the reactor installation.

Counting the north end door, this all adds up to a pretty big slab of concrete — 69 ft. long, 38 ft. wide, eight ft. high, 30 in. thick all over — enough concrete to build a four-inch thick sidewalk from end to end of the main plant — and then some!

Non-Metallic Parts Subjected To Heavy Growths of Fungus

Crops of furry green or black molds will be fostered in a new test chamber acquired for fungus testing in Convair San Diego systems dynamics laboratories.

Non-metallic materials going into plane and missile components will be subjected to perfect fungi-breeding conditions in the large chamber, resembling a stainless steel oven, explained R. E. Hamilton, research test engineer in charge of tests. New equipment is under supervision of components group of Howard Bard, dynamics lab supervisor.

Plane and missile parts containing such materials as plastics, rubbers, wire insulation, potting compounds, paints are first inoculated, or sprayed, with a solution containing spores of five common fungi. They then are placed in the chamber for 28 days at 86 degrees Fahrenheit and 95 per cent humidity to see if the fungi develops, thus causing breakdown of insulation or protective qualities. In cases of electrical and electronic equipment, fungi seriously affect electrical functions, said Hamilton.

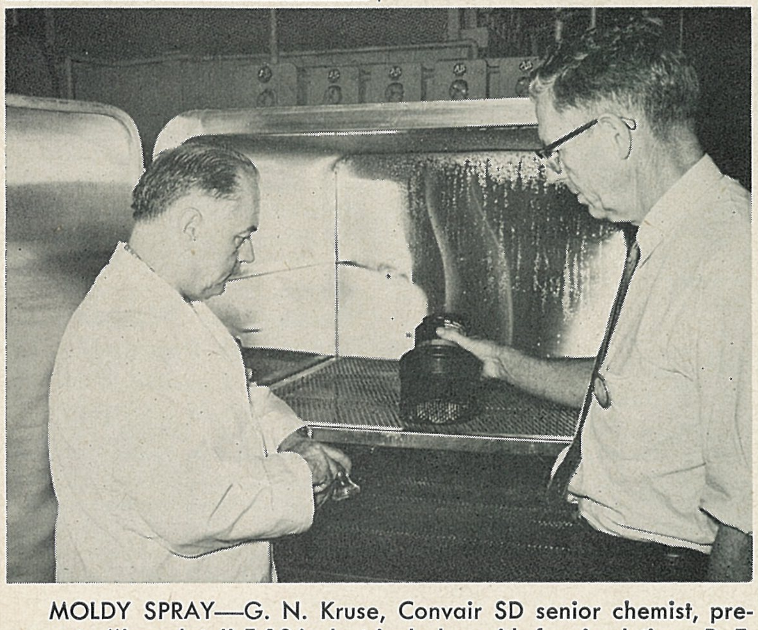
Fungi cultures are raised in chemical lab of materials and processes laboratories by G. N. Kruse, senior chemist. Spraying test parts with fungi solutions will be Margaret Fahlstrom, SD chemist.

In addition to fungi tests, the chamber also is in use for standard humidity tests on electrical and electronic equipment.

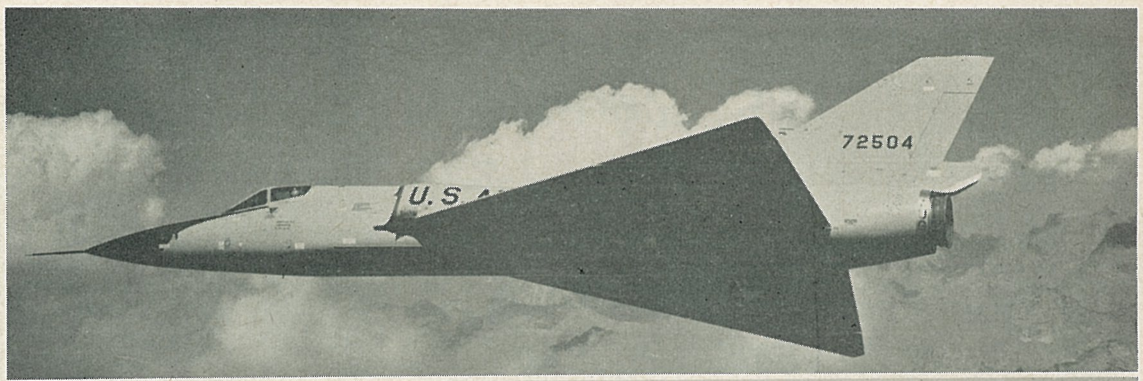
Outstanding Student Wins Angier Award

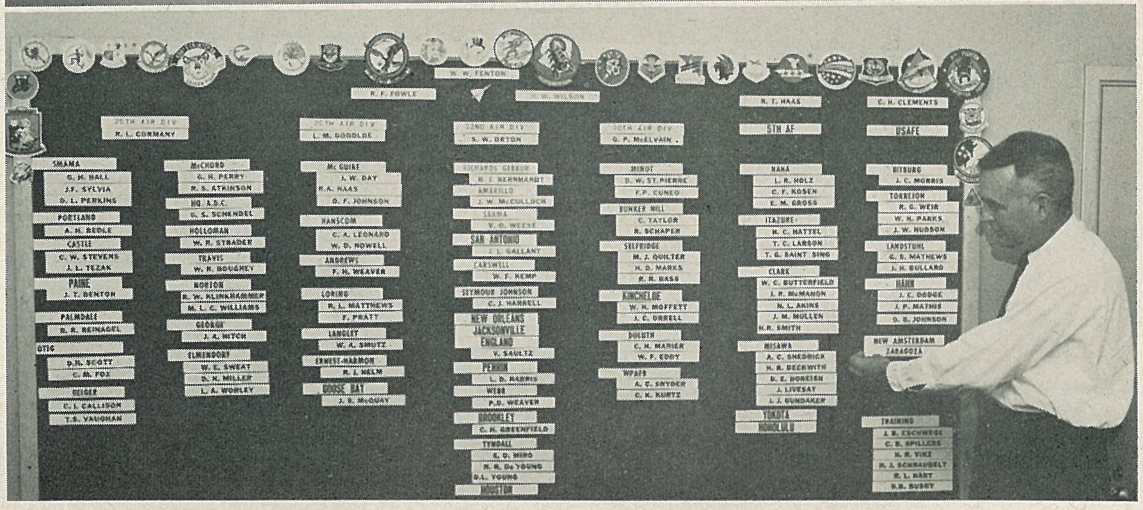
Sharon Kay, 12, daughter of Astronautics Dept. 220-1's Eldon G. Bradshaw, a student at Will Angier Elementary (Cabrillo Heights) school, has been awarded the school's highest honor, "The Angier Award for 1960," for outstanding scholastic accomplishment.

Sharon Kay has two sisters, Linda JoAnne, 15, a sophomore at Jefferson Junior High, and Carol Marie, 10, a fourth grader at Will Angier.



MOLDY SPRAY—G. N. Kruse, Convair SD senior chemist, prepares to "inoculate" F-106 electrical plug with fungi solution. R. E. Hamilton, SD research test engineer, holds part which will go into new fungi test chamber for incubation.





MOVING DAY?—Wally Fenton, interceptor field service supervisor at Convair SD, keeps track of some 90 men based with AF squadrons all over world by means of board showing names and locations. Moving name cards is simple compared to actual shifts!

Team of 90, Scattered Around Globe, Help Air Force Keep Deltas Flying

Spotted all over the globe, wherever Convair jet interceptors are in action with the Air Force, are about 90 Convair San Diego men of the interceptor field service.

Constantly on the move, house-hunting, taking children out of school and putting them into new ones, adjusting to different locales, a variety of climates, meeting new people, facing new problems, is the personal "this is your life" of SD field service representatives.

"In spite of obvious inconveniences in their family lives, our representatives do a wonderful job wherever they are with AF squadrons," said W. W. Fenton, SD supervisor of interceptor field service. "They are immersed in their work and enjoy it, as the small turnover of personnel, in the six years since the first F-102s went to the AF, shows."

Fenton, assisted by H. W. Wilson for F-106 and R. F. Fowle for F-102 activities, directs and coordinates field service operations from home base at San Diego. Acting chief of SD interceptor service is R. E. Sommers.

Convair currently has representatives at 53 bases under all major AF commands in the United States and foreign countries. They are stationed in 25 states, including Alaska; Germany, Spain, Japan, Okinawa, Philippines, Newfoundland, and, most recently, Labrador.

Commands directing operations include Air Defense Command, Air Materiel Command, Military Air Transport Service, Strategic Air Command, U.S. Air Force in Europe, Pacific Air Force, Air Research and Development Command, Alaskan Air Command, and Air Training Command.

Acting as direct Convair liaison men at AF squadrons using Convair-built F-102s and F-106s, representatives' main duty is to assist the Air Force in every possible way.

"They often work round the clock and are on call 24 hours a day," explained Fenton. "They must know our planes inside and out, so they can explain any system. They must become a member of the unit with which they work, socially as well as on the job."

Field service men are allowed to take their families to all present locations except two. Thule AFB in Greenland, deactivated this year, and Goose Bay AFB in Labrador, are the only ones off bounds to wives and children. J. S. McQuay, who left San Diego last month for Goose Bay with the newly-activated F-102 squadron, the 59th FIS, will be away from his family a year.

Of the 90-some San Diego representatives out in the field, only one is unmarried — Don Miller, based at Elmendorf AFB, Alaska. (Two confirmed bachelors of the corps, J. E. Dodge and O. B. Johnson, at Hahn AFB, Germany, were married last month; Dodge to Ann Margaret Potts of Grand Rapids, Mich., and Johnson to Anna Shill of Trier, Germany.) Average size of families is two children.

All have one thing in common — a wide background in aircraft maintenance and many have seen service with the Navy and Air Force as pilots themselves, so they understand the functions and problems in AF squadrons.

Besides a four to six-month intensive training period at Convair SD before they are put into the field, all SD field service representatives are brought back to San Diego periodically for refresher and new-product training.

Tours of duty range from one to three years, but are due to change at any given time. Fenton concluded, "We do our best not to move our men any oftener than we can help and to consider their preferences if at all possible. But, for the most part, they don't care where they go, as long as they go. After years of shifting scenes, they really feel frustrated if left in one place too long."

CAB's Boyd Sees B-58 as Supersonic Liner Step

Alan Boyd feels that production of the B-58 Hustler could be a big step in development of a commercial supersonic transport.

And the affable Civil Aeronautics Board member opines that "it's incumbent on this nation to develop such an airplane."

Boyd's observations came during a brief Convair FW visit and B-58 inspection prior to his speech before Dallas-Fort Worth aviation writers.

"The B-58—though a military plane—should help answer many of the questions we'll need to answer before entering the supersonic transport era," Boyd said.

He felt "reasonably certain" that the U. S. would have a supersonic transport in the air by 1970—but wouldn't hazard an opinion as to its operational status at that time.

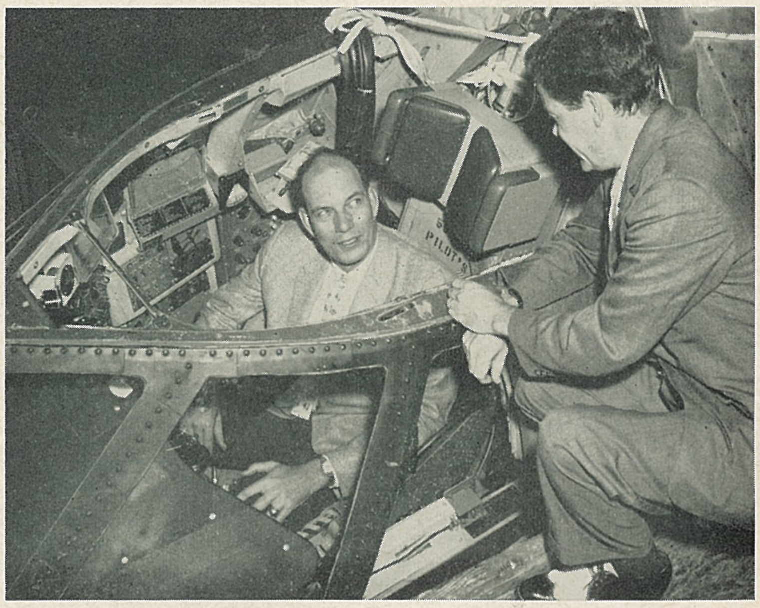
"Supersonic transports would create a tremendous new traffic problem," Boyd said. "We'll need infinitely more precise landing techniques."

Sophisticated, highly refined control centers at major key points might help solve the traffic problems, Boyd admitted.

Of the B-58 itself, Boyd said: "What can I say, except that I'm tremendously impressed with the Hustler."

The CAB official, who flew "ponderous" C-47s, C-119s, and C-124s through two conflicts—World War II and the Korean action—figures he'd like to make a B-58 flight.

"With somebody else behind the stick," he laughed.



BRIEFING—Alan Boyd, left, CAB member, gets word on B-58 Hustler from Mal Holloway during recent Convair FW visit.

C-V CONVAIR

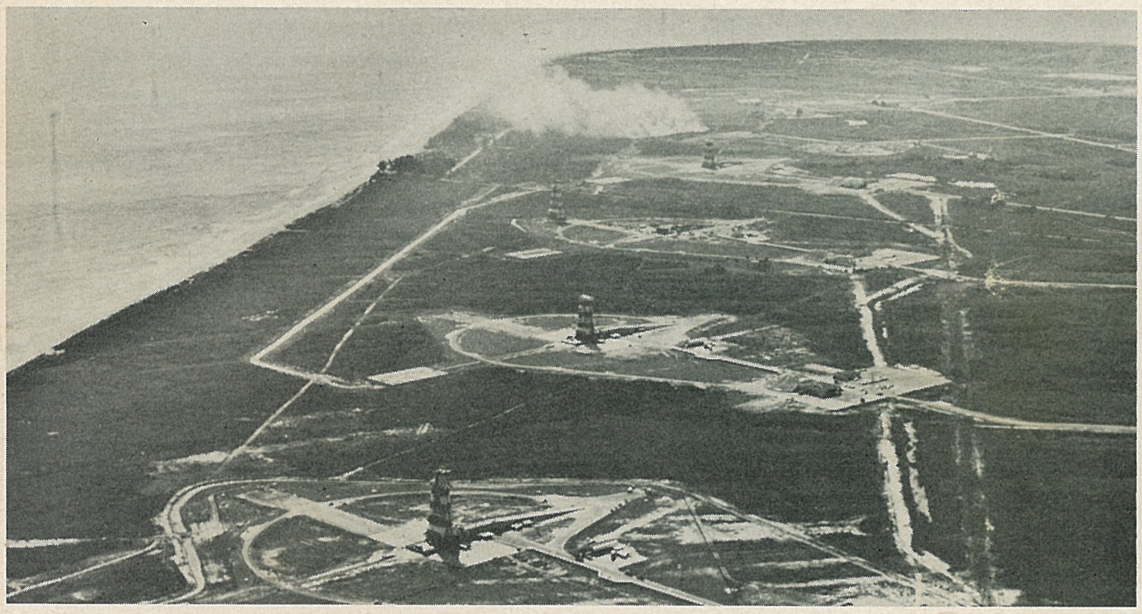
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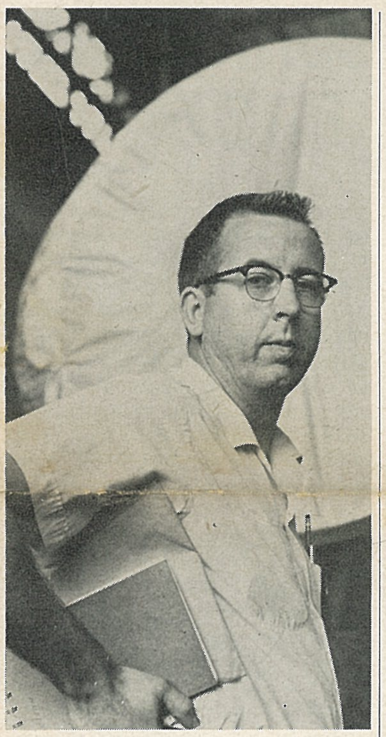
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SAN DIEGO, POMONA, ANTELOPE VALLEY, CALIF. ASTRONAUTICS OFF-SITE BASES, FORT WORTH, TEX.



FIRING GROUNDS—These Atlas complexes (Nos. 14, 13, 12 and 11) at AFMTC, Fla., have seen real action in last three years. Through July 2, some 51 missiles have been fired from here.



LAUNCH LEADER—This is Jack C. Moline, Atlas test conductor, who with 13 launchings leads all others. Second is Curt Johnston with 11. Conductors "get acquainted" early with their birds and more or less live with them until launched.

Atlas 'Mileage' Totals Shown in Flight Recap

In less than 37 months some 55 Convair-built Atlas missiles have been launched to log a combined total of over 24,142,273 nautical miles traveled.

"Miles" in this case were computed point-to-point and do not consider miles traveled up and down in reaching the target area.

However, one missile—Atlas 10B—accounted for more than 24 million of these miles while orbiting the earth once every 100 minutes for 34 days.

Three other Atlas flights (two for Midas, one for Atlas/Able) did not contribute to the remaining 142,273 nautical miles logged. Such flights are normally sent up to launch a second stage, then fall without covering any appreciable point-to-point distance. Also excluded are those missiles which failed to cover 100 miles downrange. All that cleared the launch pad are included in the 55 total, however.

Otherwise, the 142,273 nautical mile total includes all missiles from the first successful launch of less than 500 nautical miles to a recent shoot which covered over 9,000 statute miles.

(A nautical mile, used primarily by the military, is 6,080 feet.)

Fifty-one of the missiles were launched from the Air Force Missile Test Center (AFMTC) over the Atlantic Missile Range. They were fired by Convair Astronautics crews. The remainder flew over the Pacific Missile Range after launch by Air Force trainees from Vandenberg AFB, Calif., who were assisted by Astro crews.

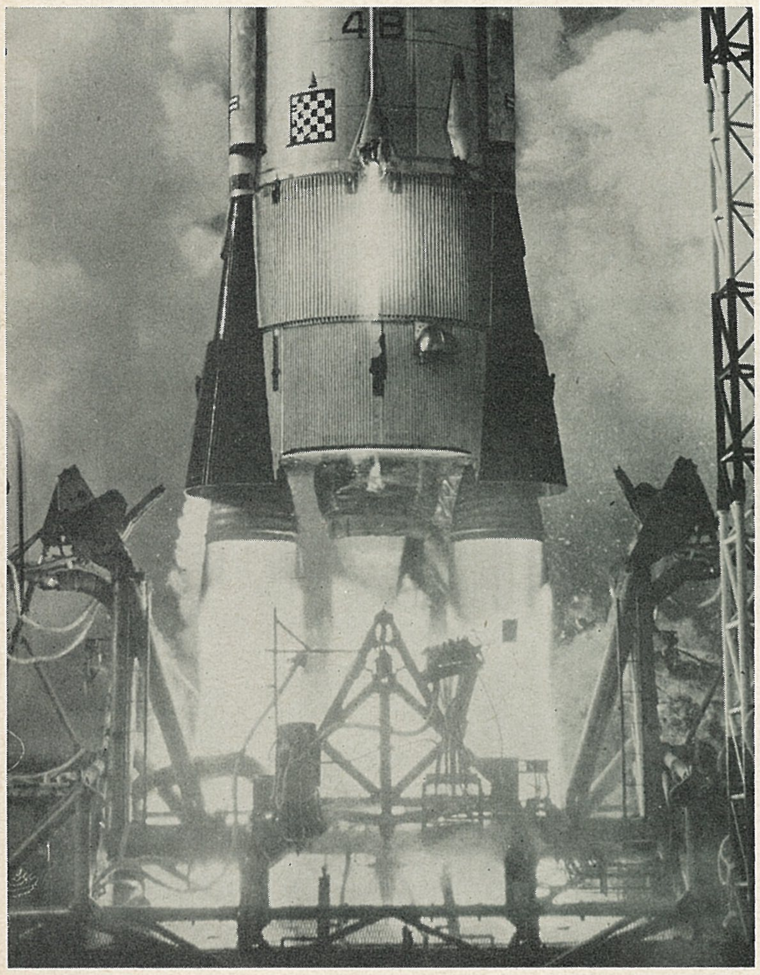
Eight test conductors have been responsible for AFMTC launches. J. C. Moline has launched 13 Atlases, more than any other man. C. A. Johnston is close behind with 11 Atlas launches. Tommie Zannes, R. C. Shotwell, W. R. Jackson and T. J. O'Malley have each fired six "birds." W. D. Taylor has launched two and J. S. Harrison, the first test conductor, one.

These totals carried through the July 2 launch.

Two men served as chief test conductors during this period, sitting in on all launches. K. W. Jeremiah was the first, T. M. Maloy, the second. K. E. Newton now fills this post (**Convairiety**, July 6).

The number of missiles launched had little bearing on the total missile miles accumulated to each test conductor. Early in the program "A" and "B" series missiles were not fired for great distance. Later "C" and "D" missiles went for longer rides. A large percentage of those fired were aimed for the Ascension

(Continued on Page 2)



NEW ANGLE—This is close-up of Atlas at instant of takeoff. Missile was launched Aug. 2, 1958, by Tommie Zannes & Co. and was complete success.

New Daylight Airlift Begun

A new daylight airlift connecting San Diego with Cheyenne, Wyo. and Omaha, Neb., went into service last week under control of Air Force Ballistic Missile Division.

The DC6 aircraft is pressurized and features stewardess service. It is a commercial plane, flown by a commercial crew. Twenty passenger seats are available.

Flights are on Tuesdays and Fridays with returns the same day.

Departure from San Diego is at 8:30 a.m. with arrival in Cheyenne at 12:30 p.m. The plane leaves Cheyenne one hour later, arriving at Offutt AFB (Omaha) at 4:15 p.m.

Return trips begin at Offutt AFB at 5:15 p.m. with arrival in San Diego at 9 p.m. All times are local.

Reservations are made through Astro's travel desk, ext. 636.

New Cafeteria Opening Slated For Early Aug.

Construction of the new cafeteria building at Convair San Diego will be complete by the first week in August, H. A. Smith, SD chief plant engineer, predicted this week.

It will go into operation as soon as possible after it is released by contractors, according to W. E. Rickman, manager of Convair operations for Prophet Co., cafeteria operators.

The half-million dollar structure being erected next to Bldg. 19, east of Pacific Highway, will replace the cafeteria building now in use, just south of the new location.

During the next couple of weeks kitchen equipment will be installed and final interior work completed. Acoustical ceiling and asphalt tile flooring will be put in place and the entire inside of the building painted.

Sidewalks will be laid to connect the building with existing sidewalks.

Construction has been done by Anthony Rossi and Chula Vista Electric Co., as a joint venture.

Convair Plans Space Radiation Study Facility

A research facility for study of space radiation, to be built by Convair at San Diego, is slated to be ready for operation by spring of next year.

Contract for design and construction of the electron/ion accelerator to be used as radiation source has been awarded to Radiation Dynamics, Inc., of Westbury, Long Island, N. Y.

The new-type 3,000,000-volt accelerator, with a beam ten times more powerful than that from similar machines, will be used to bombard test specimen with concentrated beams of electrons or ions. Data gathered will be evaluated in studies of radiation effects on electronic components and space vehicle systems.

Responsible for the facility program will be Dr. A. E. S. Green, chief of physics at Convair SD.

The installation at the SD seaplane ramp will include a 90-ft. building with four-foot-thick concrete walls encasing the accelerator to protect workers from radiation. Other test areas will be protected by six-foot concrete walls. Total cost of facility and accelerator is set at $250,000.

Proposed study programs by other Convair scientists and engineers may include study of ionized gases under bombardment of nuclear particles, and investigation of neutron and gamma radiation damage and detection of minute impurities in metals.

Explosion-Proof Room Constructed For Fuel Testing

Construction is well under way at Convair San Diego Plant 1 for new laboratory areas on the first floor of Bldg. 51.

Physics laboratories of both SD electronics and engineering departments will be relocated at the west end of the building following completion of renovation. Optics lab functions of Dept. 7 will be moved into modernized quarters.

Almost 14,000 square feet of space along the west end of the building will be remodeled during the program, scheduled for mid-September occupancy.

Included in the project will be an explosion-proof room for testing JP-4 jet fuel. Also, the existing standards lab of Dept. 7, located in center section of the building, will be expanded.

A new 1,500 KVA transformer is being installed at the rear of Bldg. 51 by Chula Vista Electric Co., to provide adequate power for equipment of centralized physics activities.

Air conditioning is under contract to Fred F. Antelline, Inc., and installation of asphalt tile flooring throughout is being done by Astra Flooring Co.

Plant engineering will do the rest of the remodeling; erection of partitions, installation of acoustical ceilings and modern fluorescent fixtures throughout the entire area.

Bloodmobile Visit Set July 28, Plant 2

Blood donors at Convair SD Plant 2 are signing this week for the July 28 bloodmobile visit.

Bloodmobile will be located in Bldg. 3 at Plant 2 from 10 a.m. to 2 p.m. next Thursday, said Ken Wulfemeyer of SD employee services.

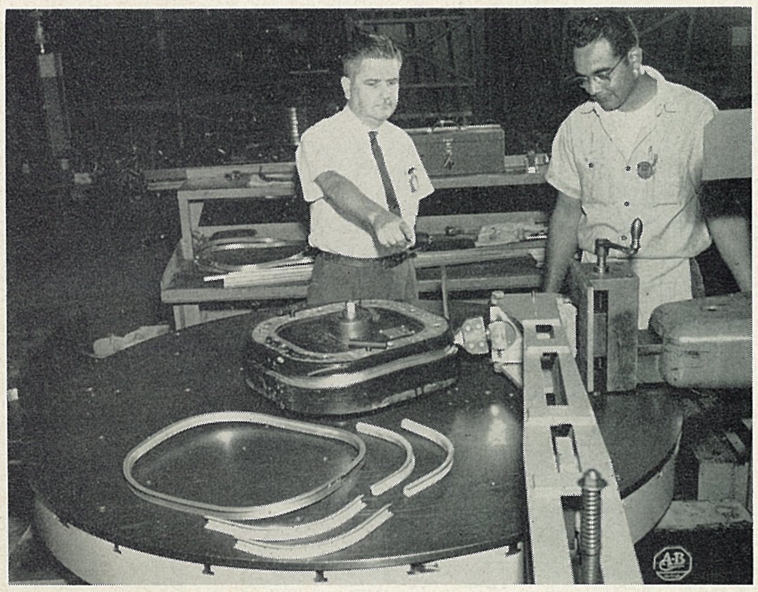
SD and AV Children Will Go to Camp With Help of Con-Trib Donations

Children from needy families in the San Diego and Antelope Valley areas who would never have a chance to go to camp will be having fun this summer thanks to $1,800 donated by Convair SD Employees' Con-Trib-Club.

Contribution of $1,000 to San Diego Salvation Army will send underprivileged children to Camp Cuyamaca or the organization's Mountain Crags Camp. Each family is asked to pay at least a part of the camping fee, if possible, with the Salvation Army financing the balance.

Twenty one-week camperships will be made available to children in the Antelope Valley area by the $500 approved for the Antelope Valley Salvation Army. Also, an additional $300 was donated for camperships for blind children in the same area, administered by Foundation for the Junior Blind.

Other contributions approved by the Con-Trib-Club Committee saw $5,000 going to charitable groups in San Diego, Alamagordo, N. M., and Antelope Valley. Building fund for Central Youth Activity Committee at Alamagordo received $1,000; United Jewish Federation of San Diego, $1,000; San Diego Mental Health Association, $1,000; Los Angeles County Association for Mental Health, $500; Goodwill Industries of Southern California, Antelope Valley, $500; and Neighborhood House, SD, $1,000.



TIME SAVER—Elliptical bender attachment on Yoder wiper at Convair SD demonstrates ability to shape part in one piece in one operation. Method now in use takes four operations (separate pieces in foreground). Left to right are B. J. McEvoy (Dept. 190), who submitted idea, and Joe Meza (Dept. 101), second-shift operator.

New Type of Forming Attachment Expected to Be Big Cost Cutter

A new type of forming attachment, designed at Convair San Diego, may save thousands of manhours and dollars when it goes into actual production.

Under development for the last year, the elliptical bender attachment for a Yoder wiper machine has proved that it can contour parts in a fraction of the time now necessary. It can shape a piece in one operation which now requires four, and do it in less than 10 seconds. With present machinery it now takes about an hour to do the same job.

The attachment, an automatic wiper head, was developed by Convair SD manufacturing development and tooling departments from a basic idea submitted by B. J. McEvoy of Dept. 190. The head automatically follows the tooling die to produce varying contours and varying degrees. It can shape circles, squares, or triangles.

The forming process, although new to the aircraft industry, has been in use in the automotive industry for shaping of such car parts as window and door frames. When it goes into use in Plant 1 sheet metal, it will be used first on retainer channels—strips to hold door seals on 880 and 600 jet transports.

"By cutting operations necessary to tool one piece, we feel certain that the new attachment will be cutting manhours and, consequently, cost in our tooling operations," commented W. P. Woods, SD chief tool engineer.

Italian Mechanics Used To Modify F-102s Abroad

Italian mechanics are turning their knowledge to good use in current modification of Convair-built F-102s based in Germany.

Working with Air Force specialists from San Antonio Air Materiel Area, Texas, Italian workers from the Fiat company at Torino, Italy, are learning the complex and new—to them—technical installations on the job. (The Italian firm won the modification contract on bid.)

The 38 skilled Italian experts will be making installations to increase the craft's radar range and prepare F-102s for firing more powerful rockets with a new safety system for pilot protection.

Capt. Frederick Chapman, project officer for F-102 modification, expressed himself as highly pleased with the way the work is going.

"Perfectly normal," is description of the contract maintenance system in the European theater designed by Maj. Gen. William T. Hefley, AMFEA commander, as an efficient and economic means of eliminating giant overseas depots.

Fall Registration Opens at SD State

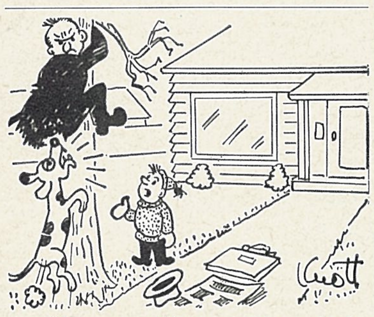
Registration for fall semester of San Diego State College's evening program is now open to prospective Convair students. Undergraduates must apply before Aug. 1 and graduate students by Aug. 19.

All students enrolling for Campus Evening courses must be formally admitted as regular students. Bulletins listing courses are available from Extended Services Office at SD State, JU-2-4411, ext. 471. The office is open from 8 a.m. to 4:30 p.m.

SD Quality Control Unit Votes Medlock

Two Convair Astro men were among officers installed by the San Diego section of American Society for Quality Control at a dinner dance July 16.

L. I. Medlock (Dept. 342) is the group's new chairman and S. S. Smith (Dept. 280) is secretary of the section. ASQC is a national organization of 15,000 members.



"I suppose this means the end of Teddy as a pet."

★ **Convairiety** ★

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FW Editorial Offices, Col. 73C, ext. 2961. Mailing address: Convairiety, Convair, Fort Worth, Texas. Telephone PErshing 8-7311. Staff: Dave Lewis, news editor; Susan Tilley, Mary Beck.

Pomona Editorial Offices, Room 106-D, Bldg. 1, ext. 6226/5279, mail zone 3-3. Staff: James Combs Jr., news editor; Dorothy Keller.

Palmdale-Holloman Editorial Offices: Chuck Willey, CRA office, Room 36, Bldg. 301B, ext. 331, Palmdale facility. O. J. Ancel, industrial relations, ext. 20, Holloman AFB.

Atlas 'Mileage' Totals Shown In Flight Recap

(Continued from Page 1)

Island area some 4,000 nautical miles downrange.

Moline with 46,934 nautical miles to his credit leads. O'Malley is next with 26,161 n.mi. Then come Jackson with 17,354 n.mi.; Johnston with 14,502 n.mi.; Taylor with 13,425 n.mi.; Shotwell with 6,212 n.mi.; and Zannes with 5,986 n.mi. Others' miles were recorded at Vandenberg AFB.

Missiles were launched from four Astronautics-operated pads or complexes at AFMTC. Complex 13 had a slight lead in launching 15 missiles but trailed all others in miles (15,359 n.mi.). Complex 14 launched 14 missiles for 49,278 n.mi., the greatest distance logged. Complex 11 launched 11 birds for 34,136 n.mi. with Complex 12 launching another 11 for 31,801 n.mi. The three Vandenberg AFB shoots tabulated logged 11,699 n.mi.

During 1957 the first three Atlas launches were conducted. In 1958 14 missiles were launched and in 1959, 23 were flown. Through July 2 of this year another 15 have been launched.

Last week marked the first occasion since Convair set up its Cape Canaveral operations that all four pads were available at one time for firings. Previously, one or more pads have been out for construction, repairs and modifications at various times.

Each missile flight was in itself noteworthy since it contributed something toward the development of the Atlas as a weapon system. But a few have stood out.

The first attempt to launch an Atlas was made June 11, 1957. The first successful flight was Dec. 17 of the same year from Complex 14 under the direction of Zannes.

A year and one day later (Dec. 18, 1958), Atlas took on its first space mission. Johnston and his Complex 11 crew sent an entire Atlas tank section complete with nose and sustainer section into orbit. This was Project Score.

However, on Nov. 28, 1958, another milestone was recorded when another "B" series missile flew the first full contractual specification range, 5,500 nautical miles. Complex 14 under Shotwell launched the bird.

The first West Coast launching came on Sept. 9, 1959, when an Air Force crew flew a "D" series missile.

First of the new open loop all inertial guidance system missiles was flown successfully March 8, 1960, by O'Malley and his Complex 11 group. The same group on June 10, 1960, launched the first closed loop circuit missile of the same system.

Atlas 45D was used May 24, 1960, to orbit the first Midas satellite. It was flown by Johnston and the Complex 14 staff.

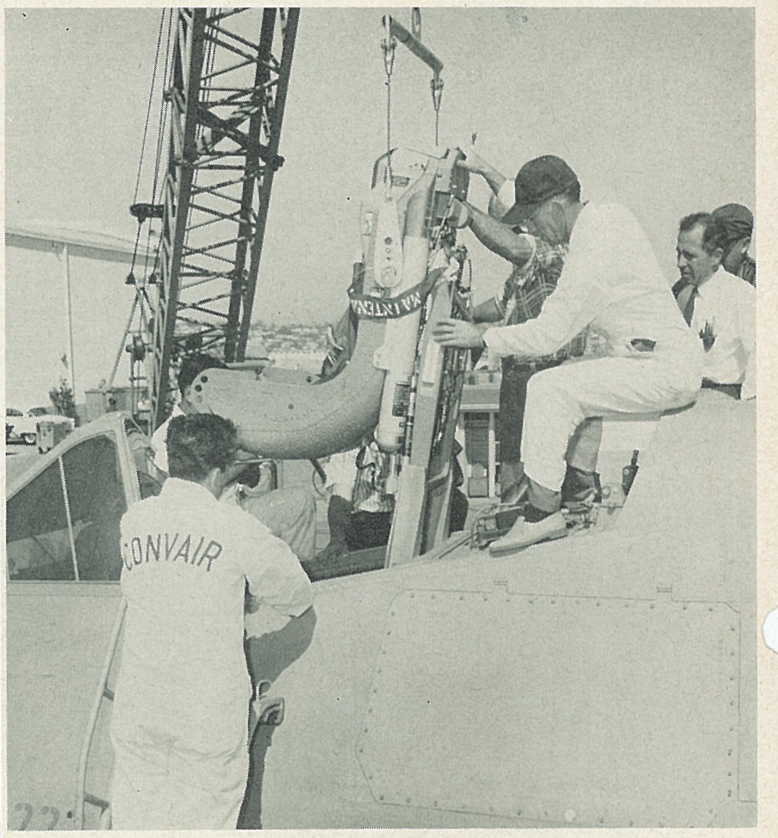
Taylor joined the parade of firsts when his Complex 12 forces sent Atlas 56D downrange over 9,000 statute miles into the Indian Ocean. This was the longest flight recorded for a ballistic missile.

CONVAIR SD SON WINS APPOINTMENT

Victor Schisler, 20, son of A. J. Schisler of Dept. 215 at Convair SD Plant 2, has received an appointment to the U. S. Merchant Marine Academy at King's Point, N. Y.

Due to report to the Academy Aug. 21, Victor stood fifth in applicants from California as a result of his qualification tests. He is a 1959 graduate from Mission Bay High School where he was an honor student and active in sports. He attended San Diego State College last school term on an athletic scholarship.

Victor also qualified for the Air Force Academy in recent examinations, but there were no openings at this time.



LOWER AWAY—D. A. Chamberlain (left) and E. L. Risner (in "Convair" coats) install supersonic ejection seat in F-106A prior to first flight to Palmdale. At far right is W. F. Cox, assistant foreman, F-106 field operations.

New Supersonic Seat Installed in F-106s

Convair pilots flying F-106s to Palmdale are sitting in initial installations of Convair's new supersonic ejection seat.

The supersonic seat made its first flight to Palmdale June 30 in an interceptor piloted by Convair SD's Bob Lawrence.



GOOD FIT—R. A. Lawrence, Convair SD flight captain and first pilot to fly in initial installation of supersonic ejection seat in F-106, receives chrome-plated "spurs" from W. F. Cox, assistant foreman, F-106 field operations.

The Air Force is scheduled to receive its first F-106 equipped with a fully updated supersonic ejection seat in September.

Presently, according to Les Boring, foreman of F-106 field operations, the supersonic seat is being installed on all F-106As making first flights to Palmdale.

For reasons of safety, seats are installed at F-106 field operations. Most of the rockets, which give seats their supersonic thrust, are stored at the Navy's Fort Rosecrans facility. Only an operating supply of rockets is maintained at field operations.

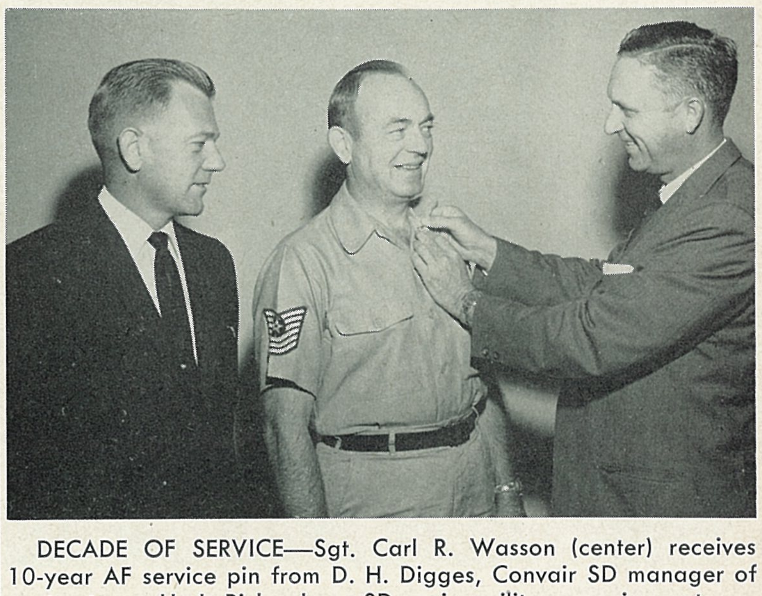
Boring pointed out that seats are upgraded with latest design changes before installation, then functionally tested before flight.

A retrofit program to install supersonic seats in earlier F-106s is now in process. Most of the earlier F-106A interceptors have provisions already built in for installation of the supersonic seats.

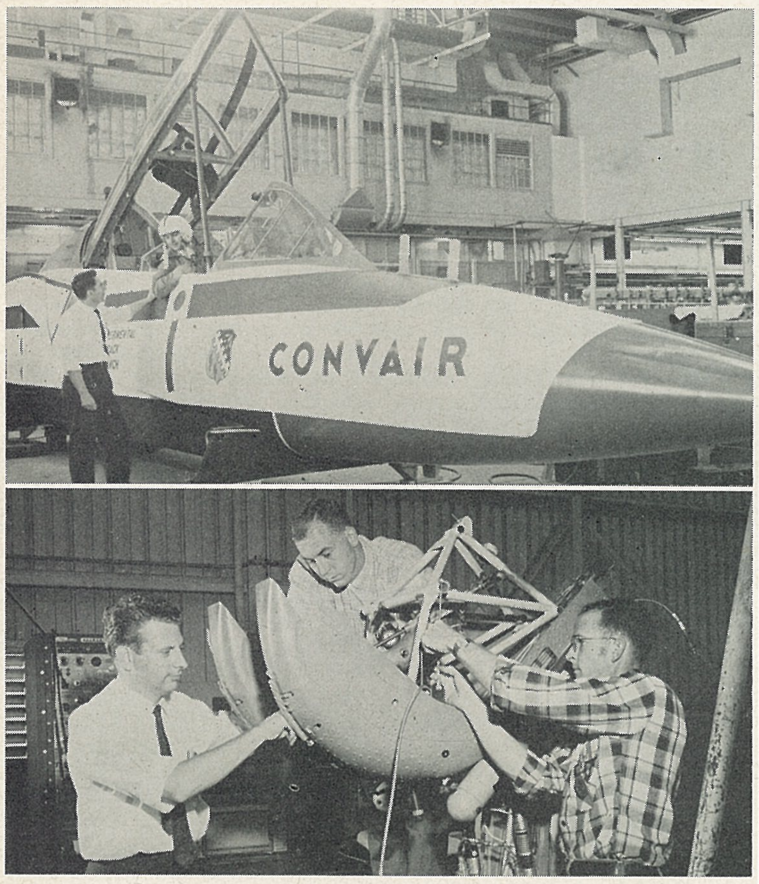
Seats for the retrofit program will go through test, check and loading procedures at field operations before delivery to either Convair or Air Force field crews for installation.

In addition to Lawrence, who became the first "live man" to fly the supersonic seat, John Emerson and Bud Dunafon are among Convair pilots who deliver F-106s to Palmdale. Also playing an important role is Lee Brugger, flight engineer for F-106, who makes final F-106 acceptance runs in the "hush house," completely checking out the aircraft before turning it over to one of the three Convair pilots.

Coordination of the programming, modification and installation schedule of the supersonic ejection seat is the responsibility of D. D. Clough (Dept. 5).



DECADE OF SERVICE—Sgt. Carl R. Wasson (center) receives 10-year AF service pin from D. H. Digges, Convair SD manager of contracts, as H. J. Richardson, SD senior military requirements engineer, looks on. Sgt. Wasson has been assigned to AF office at Convair since June 19, 1950.



READY TO GO—At top, C. S. Rosefeld, Convair SD Dept. 31 assistant supervisor in charge of construction of supersonic seat test sleds, consults with F. J. Signorelli, structures engineer (occupying dummy's seat in cockpit), before modified sled left last week for Edwards AFB test track. In lower shot (from left), Niels Anderson and Don Skiba of systems dynamics lab and Don Altendorf of Dept. 31 adjust seat test specimen now going through functional and environmental checkout at Convair SD.

Expert Team Studies Suits, Ejection Seats

An Air Force team was at Convair San Diego last week evaluating equipment designed for use with Convair's supersonic ejection seat.

Capt. J. W. Kittinger, Capt. R. M. Chubb, and M/Sgt. G. A. Post, all attached to Aerospace Medical Division of Wright Air Development Division, Dayton, Ohio, were at the San Diego plant to integrate pressure suits and related personal equipment with the seat.

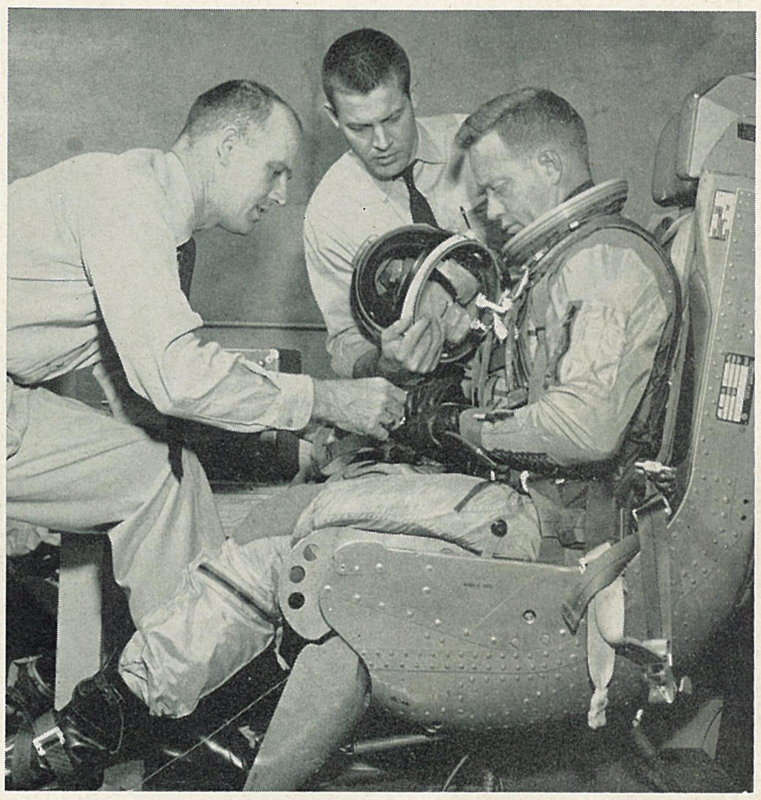
They all report to Col. Paul Stapp, chief of the Aerospace Medical Division, known as the "world's fastest man." Colonel Stapp has been widely publicized for his 632-mile-per-hour ride in a sled test run at Holloman AFB, N. M.

Captain Kittinger holds ratings of senior pilot, AF test parachutist, and balloon pilot. In "Man-High One Project" in 1957 he went to 96,000 feet in a sealed balloon gondola, at that time the record altitude for a human being. He and M/Sgt. Post, expert tester of parachutes and personal equipment, participated in "Project Excelsior" in the fall of 1959. During these high altitude escape studies, Kittinger made a jump from an altitude of 76,400 feet.

M/Sgt. Post has made at least 250 parachute jumps. He was the first enlisted man to eject from the B-47 in its downward ejection seat several years ago.

Captain Chubb is a flight surgeon attached to the Aerospace Medical Division.

They expect to return the latter part of this month for further studies.



SNUG FIT—Capt. J. W. Kittinger, encased in pressure suit, has fittings adjusted by M/Sgt. G. A. Post (at left) and Capt. R. M. Chubb, holding helmet, during evaluation at Convair SD of equipment designed for use with Convair supersonic ejection seat.

Payroll For Astro Passes 20,000 Mark

Astronautics, "youngest" of Convair's operating divisions, has passed all others in total employment.

July 12 saw Astro's employment soar above the 20,000-person mark for the first time.

Latest count from other Convair sites showed 19,060 persons at San Diego; 17,921 at Fort Worth; 6,315 at Pomona; 454 at General Offices, and 259 at Daingerfield.

Navigation Institute Hears Convair Paper On Launching Effects

Convair was represented by two delegates at the 16th annual Institute of Navigation held last month at U. S. Air Force Academy, Colorado Springs, Colo.

P. H. Selby, Convair SD flight training supervisor, and Dr. R. M. Leger, Astronautics chief of flight performance and analysis, were among the 250 industry and military delegates from all over the world.

Leger gave a paper on "Effects of Launching Time on Space Navigation Problems" during the first day, devoted to space navigation. Surface and sub-surface navigation and jet airline transport navigation, including international air traffic control, were under discussion during the following days of the conference.

"Navigating the B-58" was topic of a paper given by Capt. William L. Polhemus, 3958th Combat Crew Training Squadron, Carswell AFB, Texas.

New Chapter of IRE Elects Astro Men

Three Astronautics employees have been elected officers of the newly formed San Diego Professional Group Chapter on Space Electronics and Telemetry of the Institute of Radio Engineers.

Eric Herz, Dept. 591-5, is chairman; Bernard Lander, Dept. 270-3, vice chairman; and Charles Burgi, Dept. 565-2, secretary.

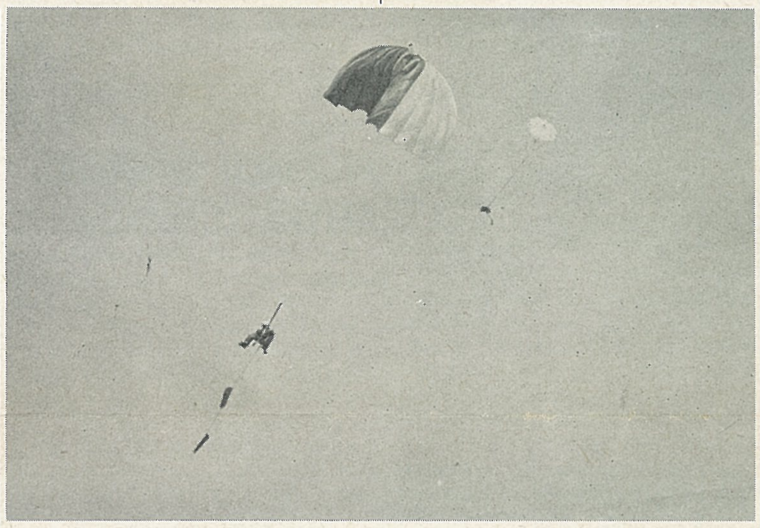
Ejection Seat Tests Enter Final Stages

Drawing near the end of a four-year intensive program, testing of the Convair-designed ejection seat to go into jet interceptors is now in final stages.

Convair crews are now at Edwards AFB, Calif., and Holloman AFB, N. M., coordinating tests of the F-106B supersonic seat test sled and actual flight tests of the B seat. Dummies only are ejected in sled tests on the 20,000-ft. Air Force track at Edwards. Both dummies, and later, AF men will be ejected from planes during checkouts at Holloman, said Hugo F. Mohrlock, Model 8 project engineer at Convair San Diego.

Designed by Convair SD engineers, the escape system, an entirely new concept, propels pilot and seat vertically from the plane's cockpit. In an emergency, pilot triggers ejection by pulling a D-shaped ring between his legs. Canopy is automatically unlatched and jettisoned. Pilot's feet are retracted, and seat pan is rotated to provide support under the thighs. Seat is raised by vertical charges, then rotated to horizontal position so that pilot is protected from wind blast forces as he is pushed out into high air pressures.

A rocket catapult blasts the seat from the plane after the firing of four breakaway bolts releases the seat from the aircraft. Booms are extended on either side of the seat back to stabilize it as it catapults into mid-air. When clear of the plane, anywhere from 100 to several hundred feet away depending upon speed at time of ejection, seat harness is released automatically and a drogue chute pulls the pilot from the seat. This operation sets off the timer to release a large parachute which wafts the pilot safely back to earth.



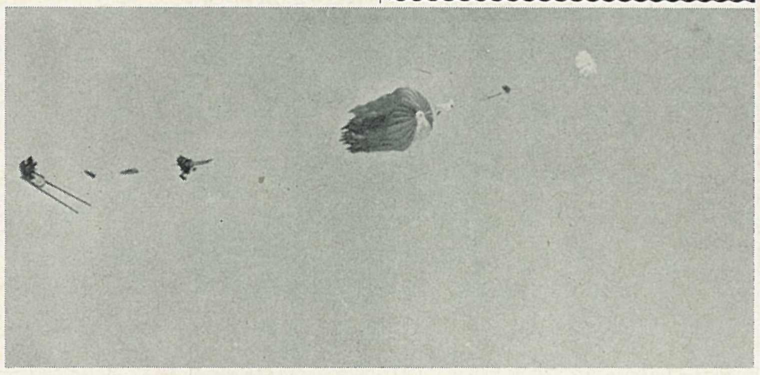
EARTH BOUND—Large parachute is triggered to take pilot safely back to solid ground.

"In the supine position, wind blast protection is virtually complete," said Mohrlock. "In a wind blast sled run, simulating Mach 2.5 flight at 30,000 feet, a helmet and oxygen mask remained in place on the dummy's head. A package of cigarettes in his open breast pocket stayed there through the entire sled run.

"We find that the seat-man combination is an aerodynamically stable body. In high altitude ejection, he rides the seat down to parachute deployment altitude. Excellent free fall stability of the seat has been demonstrated by a balloon drop from 86,000 feet at Holloman Air Force Base."

At Edwards, the test sled whizzes across the desert sand as fast as 870 miles an hour (sea level speed which approximates high supersonic speed at altitudes). When seat and dummy pilot are ejected forces as high as 30 Gs are exerted for perhaps a tenth of a second, explained B. E. Browne, test engineer in SD systems dynamics laboratories.

Browne is lead engineer of the dozen or so systems dynamics lab men who have directed tests during proving of seats designed for



OUT HE COMES—Drogue chute pulls pilot from seat as harness is automatically released. Mechanism goes into action when ejection seat is safely clear of plane.

installation in both F-106As and F-106Bs.

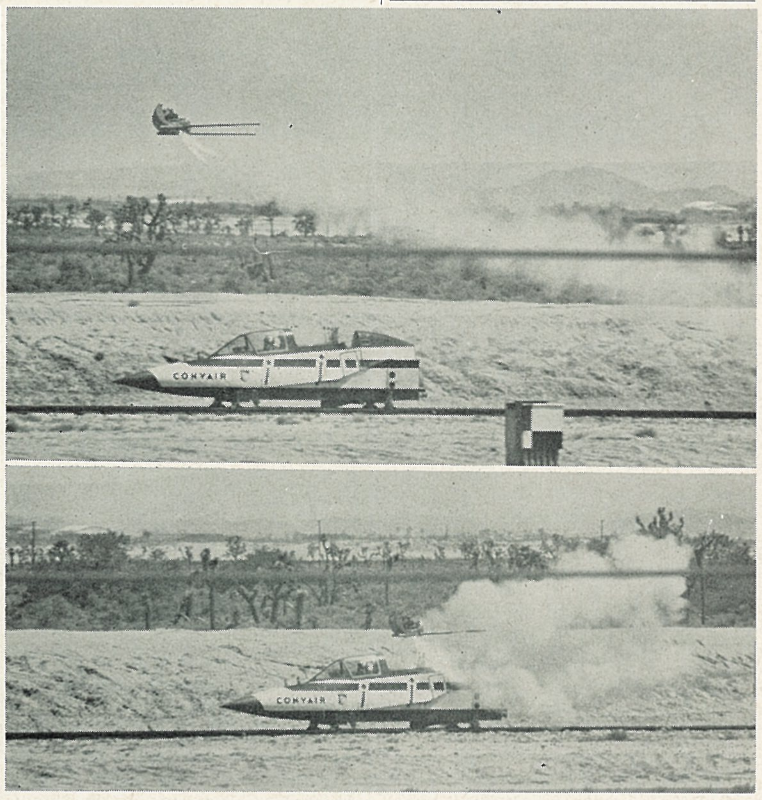
Others are checking closely results of flight tests now in progress at Holloman. Probably the man most responsible for sled runs is J. G. Kalogeris of SD systems dynamics laboratories who has been on the spot at Edwards during all of the test program. The group reports directly to George Vasick, utilities control supervisor in SD systems dynamics laboratories.

Coordinating the Holloman flights for Convair is R. G. McGeary of SD engineering flight test, assisted by G. H. Solheid.

All test sled specimens, in their gaudy red, white and black color scheme, have been built by C. S. Rosefeld's group in SD experimental department. In latest modification before current runs, his men installed an actual cockpit section on the test sled. The crash program saw the job finished in two weeks.

Engineers working closely with experimental during construction were James Barron of the project office, Tom Webster of furnishings and F. J. Signorelli, structures engineer.

The seats are built by Aircraft Mechanics, Inc., of Colorado.



GOING UP—Ejection seat and pilot are blasted from plane by rocket catapult and rotated to horizontal position. Note booms in sequence photos.

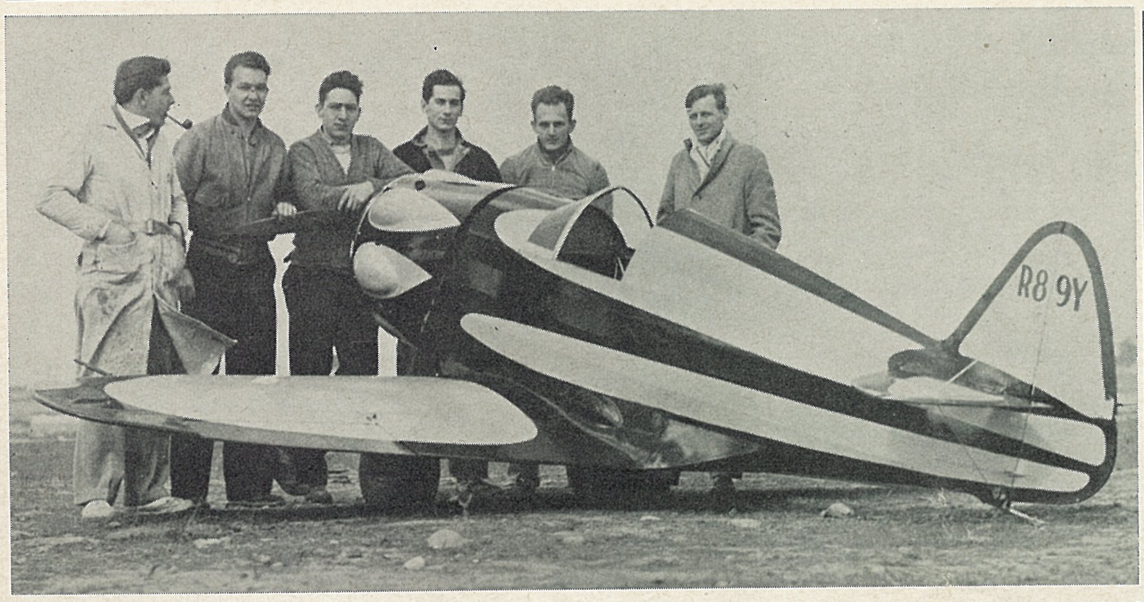
1,500 Engineers Expected in San Diego For Annual AIEE Convention Aug. 9-12

General Dynamics Corporation will be prominently represented at a meeting of the American Institute of Electrical Engineers, Aug. 9-12 at El Cortez Hotel, San Diego.

J. R. Dempsey, Convair vice president and Astronautics manager, will address more than 1,500 engineers expected to attend.

Tours to Convair-Astronautics, Stromberg-Carlson plant, John Jay Hopkins Laboratory of General Atomic, and to Astronautics' Sycamore Canyon Test Facility are scheduled. Technical papers by engineers of several General Dynamics divisions will be presented.

Convair personnel assisting with convention arrangements include Glen Eggen, Astro Dept. 547, general committee chairman; Ernest F. Kotnik, Convair SD, technical committee chairman; J. R. Crooks Jr., Astro Dept. 551, sponsoring section, and H. R. Hughes, Astro Dept. 545, publicity chairman.



MIGHTY MITE—"World's smallest airplane," designed, built by Convair men in 1935, weighed 408 pounds, was 3 feet, 10 inches high. Two of builders on this pre-flight photo are Convair FW's J. Y. McClure, on far right; next to him is Lionel Machado, now Hawaiian Airlines vice president.

Convair Men and Visitor, Recall Roles Helping Fly 'World's Smallest Plane'

Two Convair FW executives who had a hand in building the world's first supersonic bomber once helped put the "world's smallest airplane" together.

And there was lots of big talk about this mighty aeronautical mite recently when Convair's J. Y. McClure and C. C. Flagg played host to Lionel Machado, vice president of Hawaiian Airlines.

Machado was at Convair FW evaluating the future of supersonic transports.

But back in 1935, just a year after graduating from Curtiss-Wright Technical Institute in Glendale, Calif., McClure and Machado went to work for Convair SD. There they met Flagg, an inspector and self-styled airplane race designer of some repute.

At the moment, Flagg had on the drawing boards a small, fast plane suitable to enter in the National Air Races at Cleveland.

They added two more Convair employees to the "payroll" and started working on their "dream boat" in a store building "somewhere on Washington Boulevard in Mission Hills area."

"We'd work at Consolidated all day, then work on our plane evenings," McClure said. "Usually we'd all end up taking the last streetcar home around midnight."

Working right up to deadline, the Convair men put the last coat of paint on their sleek midget and rolled it out early one Saturday morning.

"At 6 a.m. the same morning, we had the plane hitched to a 9-passenger (all seats taken) Ford station wagon and we were off to the races in Cleveland," Machado recalled.

Flagg remembers "it cost us a-cent-a-mile tonnage fee to cross New Mexico."

The diminutive 90-horsepower racer had 26.4 square feet of wing area—less than the size of an average door; it was 12 feet, 6 inches long; and had a 16-foot wing span. Total weight was not an ounce over 408 pounds; height, 3 feet, 10 inches.

"We were lucky," McClure mused, "that the average pilot in those days averaged only between 145-150 pounds."

The racer didn't win any medals at Cleveland. But once back at San Diego, the builders modified the wing span to only 12 feet, pushing the top speed to 235 mph. Not bad for an era when 135 mph was flying fast.

"Landing speed with flaps was 65 mph," Flagg said. "Due to power vs. weight ratio, takeoff distance area was very short, coupled with an extremely high rate of climb."

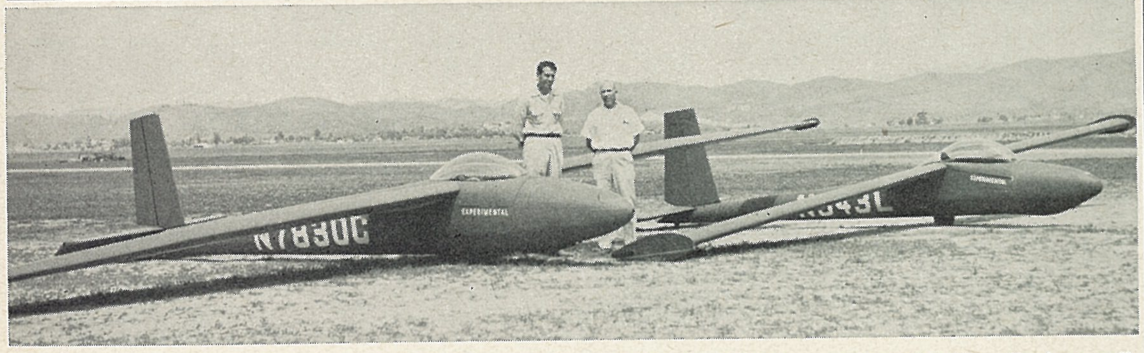
The modified version, which became a familiar sight in Southern California skies, held 16 gallons of gas in two tanks and could cruise perhaps three hours under proper conditions.

"Longest flight I can recall for our plane was a three-hour, non-stop hop from San Diego to Los Angeles—where the pilot put on a little show—and back again," Machado said.

Flights such as this attracted wide attention, and in 1937 top newsreel cameramen and a bevy of internationally known aviation writers converged on San Diego to see "the world's smallest airplane" perform.

All three agreed: "The venture was lots of work—and fun."

After reminiscing over their 235-mph, "vest-pocket" masterpiece, the long-time friends had a flight-line look at the Mach 2 Hustler.



GROUND UP—George Tweed of Astronautics and Gene Whigham, Convair SD, display sailplanes they designed and built themselves. Except for wheels and instruments, gliders were assembled from surplus materials from company salvage yards. Construction took four years.

Successful Flights Prove Design Of 'Hand-Made' Gliders at San Diego

Two Convair engineers, George Tweed of Astronautics and Gene Whigham of Convair San Diego, recently made their first flights in gliders that are truly "hand-made" in every sense of the word.

"We fashioned every part on these gliders by hand with the exception of instruments and wheels," Tweed said.

Evidently they did a good job. Tweed recently flew his ship over a 190-mile set course to earn a bid for the National Soaring Championship scheduled Aug. 2-11 at Odessa, Tex.

The pair have been flying gliders since about 1948, taking part in various soaring events, including those sponsored by the CRA Glider Club. They owned one glider jointly.

Four years ago Tweed decided he would like to incorporate some original ideas in a glider. He set about building his ship in his garage with an occasional assist from Whigham. Then Whigham got the fever and a few months later his garage became a second "production line."

The men "shopped" regularly at Astro and San Diego salvage yards and made excursions to surplus dealers' yards throughout the area. Surplus P-38 drop tanks were used as portions of the nose sections. Most of the afterbodies of their ships contain aluminum bulkheads and stringer units with fiber glass coverings. They fashioned the plexiglass bubble cockpit canopies by hand.

"The ships look alike, just as most gliders do, but they are each individual designs," Whigham pointed out.

Tweed's glider is the largest. It has a tapered wing of 48-foot span and weighs some 490 pounds empty. Whigham's constant chord wing is 40 feet across, his ship weighs about 350 pounds empty.

Both gliders have been certified as "experimental" and Tweed's is now licensed for cross-country flights.

Tweed's bid to the National came on the strength of a flight he made June 11, taking off from and returning to El Mirage Airport near Palmdale. His tow plane carried him to 4,200 feet and he climbed as high as 16,000 feet in making the round-trip run of 190 miles to Twentynine Palms.

Tweed earned the Soaring Society of America's Golden "C" award for his feat. He is one of about 90 glider pilots in the United States to gain this recognition. He also earned the first "diamond" of three which can be added to this award. A select field of only 16 U. S. pilots have earned all three "diamonds," each given for top accomplishments in soaring.

Is It News?
Call Convairiety

War Career

Youngster Who Spied For Allies In Philippines Now With Astro

Newsboy, spy and friend of American prisoners of war, all before his 15th birthday!

That's the story of Anthony L. "Tony" Estalio, now of Convair Astronautics' Samos project at Vandenberg AFB.

Born in Santa Maria, Calif., the son of Philippine immigrants, Estalio was 10 when his parents took him to Manila for a visit in 1938. Two years later his father, a successful farm labor contractor, returned to the United States. Estalio and his mother extended their visit and soon it was too late to escape as World War II swept across the Pacific.

The Estalios promptly decided to hide their American citizenship. It worked too, although both had to be careful to speak English with a pronounced accent.

At first, Japanese planes over Manila were thrilling sights to Estalio and his playmates.

"We would stand out in the street and watch them fly over, open their bomb bays and drop their bombs," Estalio said. "Then we saw the death and destruction they brought and quickly learned to hide at the first sounds."

Estalio recalls standing on hilltops and witnessing battles on Corregidor and Bataan.

Then the Japanese moved into Manila, jailing every known American. The Estalios remained free. Both took jobs to support themselves. Tony became a newsboy, selling the Manila Chronicle. Always careful to speak a mutilated version of English, he struck up an acquaintanceship with a Japanese officer who had attended college in California.

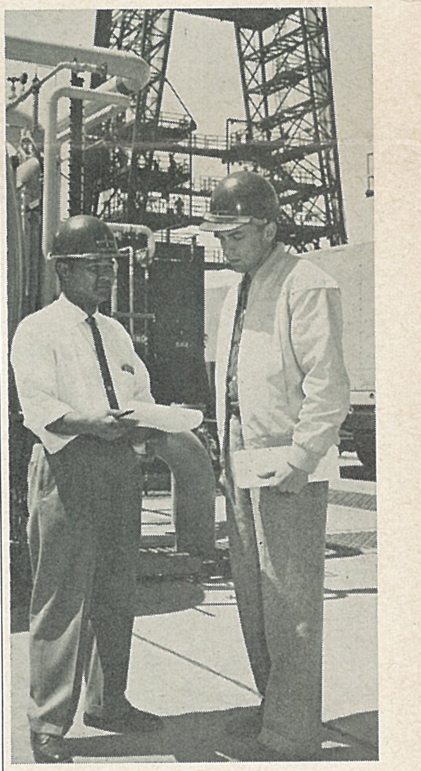
"He frequently took me along with him and before long I was allowed to come and go selling papers in the Japanese military installations without questions."

Before long he became friendly with a former newspaper reporter and member of the underground to whom he passed information about Japanese activities. His information was relayed by radio from the nearby hills to submarines offshore and eventually to Allied headquarters.

"The reporter and I had a signal worked out. If the coast was clear I folded a paper and held it by my chest. If not, I would swing a paper like a lantern."

Young Tony continued his paper-selling and intelligence activities for the duration of the war. Eventually he and his mother returned to the States and Tony went back to school. His education again was interrupted by warfare when the Army called him to duty in Korea. After discharging this responsibility he returned to school and was graduated from California Polytechnic College at San Luis Obispo.

Estalio has been with Convair for two years in an engineering post. His hobby is designing parade floats, using flower decorations, and has won a number of trophies for his creations.



FAMILIAR FIGURE — Anthony "Tony" Estalio, left, is well-known among Astro's Vandenberg AFB force, although few know of his wartime service in Philippines. He is shown with Dick Vertigan near Atlas launch tower.

RESEARCH ENGINEERS ATTEND CONFERENCE

Two Convair Astronautics research engineers, A. Hurlich and Dr. J. F. Watson, took part in the annual meeting of the American Society for Testing Materials June 27-July 1 in Atlantic City.

Dr. Watson presented a paper on "Mechanical Properties of Cold-Rolled 301, 302, 304 ELC, and 310 Stainless Steel at 78°, -320°, and -423° F.," co-authored by Astro's J. L. Christain. He also served as program chairman.

Hurlich presented a summary of the symposium, including 12 papers from various aircraft and missile manufacturers, metals producers, research institution.

On Her 16th Birthday, Convair Girl Solos

Federal regulations require a minimum age of 16 years to issue a student pilot's license.

An Astronautics daughter, Sandra Pattillo, late last month completed requirements for her student's license, on her 16th birthday, June 26!

The young daughter of R. O. Pattillo of Dept. 212-2 has been interested in flying for years. A family council, with Sandra pleading, agreed on the pre-16 lessons.

Sandra enrolled in a Gillespie Field flying school and passed all the tests prior to solo. On her 16th birthday she took the training plane up alone, for the first time.



"I wish you fellows would get your eating over with . . . It's almost lunchtime."

NEWS FROM OTHER DYNAMICS DIVISIONS

General Dynamics Corporation, created in April, 1952, as successor to Electric Boat Company, is composed of seven divisions and a Canadian subsidiary, Canadair Limited, of Montreal, airframe builders. The divisions are:

Convair, head offices at San Diego, Calif., aircraft, missiles, and space systems.

Electric Boat of Groton, Conn., submarines.

Stromberg-Carlson, of Rochester, N. Y., telecommunications, electronic equipment.

Liquid Carbonic of Chicago, Ill., carbon dioxide producer, industrial and medical gases.

General Atomic of San Diego, Calif., nuclear research, development, production.

Electro Dynamic of Bayonne, N. J., electric motors, generators.

Material Service Division, Chicago, Ill., building materials, concrete products and coal.

* * *

General Atomic to Design, Build Special Reactor For U. S. Army

WASHINGTON, D. C.—A new atomic reactor capable of providing short pulses of intense nuclear energy for the study of radiation effects on electronic equipment will be provided by General Dynamics Corporation for the Army's Washington, D. C., Diamond Ordnance Fuze Laboratories.

Dr. Frederic de Hoffmann, senior vice president of General Dynamics and president of its General Atomic Division, made the announcement.

The newly-developed reactor, a special adaption of TRIGA reactors, called TRIGA Mark-F, will be located in Walter Reed Army Medical Center, Forest Glen, Md. Its primary purposes will be the study of effects of radiation on various types of electronic components and circuitry used in Army ordnance equipment, including tests of equipment while in actual operation.

General Atomic will be prime contractor for the design and construction of the reactor and associated facilities at an approximate cost of $1 million. Construction will begin late this year in conjunction with Holmes and Narver, Inc., of Los Angeles, the architect/engineer and construction subcontractor. The reactor facility is scheduled for completion in the latter part of 1961.



NEW STYLE—Stromberg-Carlson will merchandise new extension telephone with illuminated dial that glows softly when headset is in place, lights up brightly when lifted.

Canadair Ships First Components In Subcontract to Lockheed

MONTREAL — First set of components which Canadair Limited, of Montreal, is building for F-104G interceptors destined for West German Air Force was shipped recently from Montreal to Lockheed Aircraft Corp., at Burbank, Calif., where the planes are to be assembled.

Lockheed's subcontract to Canadair calls for 80 sets of wings, ailerons and empennages. Completion is due by 1962, at a total value of more than $4 million.

At the same time, Canadair is building airframes for 200 CF-104s, similar to the F-104Gs, for No. 1 air division of the Royal Canadian Air Force which is serving with NATO in Europe. The first of these Canadian aircraft is to be delivered early next year.

The F-104, which is in squadron service with the U. S. Air Force and from which both the Canadian and German versions have been derived, holds the world's altitude record at more than 103,000 feet, and in speed has registered more than 1,400 miles an hour.

Mfg. Leaders Attend Inter-division Meet

Astronautics recently (July 7-8) hosted the first annual inter-division manufacturing development meeting for six divisions and one foreign subsidiary of General Dynamics Corporation.

The affair drew 35 manufacturing leaders from General Dynamics.

August C. Esenwein, Convair's executive vice president, presented the keynote address at the two-day affair. J. R. Dempsey, Convair vice president and Astronautics manager, extended a welcome.

Electronic Printer Ordered For Navy

SAN DIEGO—An S-C 3060 medium speed electronic printer has been delivered to U. S. Navy Postgraduate School at Monterey, Calif.

The printer will be used by Project NANWEP, a Naval Weather Service Research Unit using high speed digital computers in the development of new naval meteorological techniques.

Value Control Men Confer at Pomona Parley

Five Convair Fort Worth people who will be project leaders in future seminars at Fort Worth are attending a value control conference at Convair Pomona.

T. A. Scott, material; M. E. Aldrich, engineering; B. W. Kahla, industrial engineering; and Bill McMurry and J. D. Ancy of educational services are attending the seminar which started July 11 and runs through July 22.

Upon returning, the five will assist E. D. Heller and Ben Schroeder of Convair Pomona in conducting the kick-off seminar here in August for key Convair FW personnel.

About 17 departmental coordinators and a few other key personnel will attend the initial sessions, according to W. E. Emish, industrial engineering manager and Convair FW value control coordinator.

"Seminars of this nature will be repeated for some time in the future at FW," Emish said.

Biggest Radome Covers Molded In Spares Order

Largest radome covers ever to be molded at Convair San Diego will be going on Convair-built T-29s now in service with the Air Force as navigational bombardier trainers.

Last of the 22 black "bubbles" were due to be shipped this month to Kelly Field, San Antonio, Texas, under a spares order.

Over the last eight months the large covers, which will house electronic radar equipment on the T-29s, have been molded in Dept. 31 model shop. The bonded structure is honeycomb reinforced with fiber glass, said Joe Turner, assistant supervisor. The mold used was originally built by Convair and returned for this particular job.

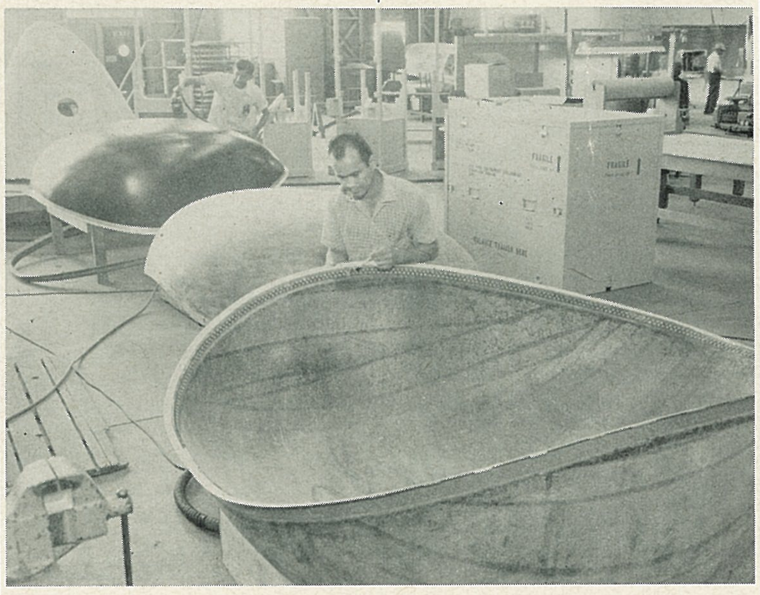
After molding they go to experimental assembly area where they are completed with rims and protective coating. They get 16 coats of the same type that goes onto F-106 nose cones, explained W. E. Porter, assistant foreman. On top of four primer coats go 12 layers of rain erosion coating as an abrasive protective covering. After the last coat, the cover must stand for 72 hours without touching. Paint turns from brown to the shiny black color seen on interceptor nose cones.

The large covers measure 7 by 8 feet across and stand 4 feet high. Their size presented problems when workmen found they couldn't reach across them and had to erect platforms for the lengthy stretch.

Directing their progress through assembly operations was Bryce Bludworth, manufacturing control assistant foreman.

Stromberg-Carlson Gets Radio Order

ROCHESTER — Stromberg-Carlson has received a $1,131,299 contract from the U. S. Army Signal Research and Development Laboratory at Fort Monmouth, N. J., for two engineering test models of single sideband tactical transistorized radio sets.



BUBBLE BUILDING—Joe Flores, Convair SD assembler (in foreground), attaches rim and John Katich, Dept. 31 paint shop, goes through motions of spraying final protective coating on T-29 radome covers made at SD.

First Powered Assembly Line Tried Out by Vultee at Downey

(This is installment No. 39 in Convairiety's continuing history of Convair.)

Stinson Aircraft was building L-1 liaison planes for the Air Corps in a new plant put up by



HEAD MAN—Tom Girdler was head of Consolidated Vultee's board of directors during early years.

its parent company, Aviation Manufacturing Corp., at Nashville, Tenn., in late 1940 when Vultee Aircraft acquired control.

The new Nashville plant totaled 180,000 sq. ft. and an expansion program increased space to 817,-000 sq. ft. by the fall of 1941. Production of the Vultee dive



PRESIDENT—Prior to merger, Harry Woodhead became president of both Consolidated and Vultee and was prominent executive during war years.

bomber Vengeance was shifted to Nashville and Stinson resumed operations at the Wayne, Mich., factory.

Expansion was the order of the day at Downey, Calif., too. Vultee's home plant there had 133,000 sq. ft. early in 1938, when the only work on hand was the V-11 attack plane (and the working capital at one point was a deficit of $175,000). By May of 1940 (when President Roosevelt asked for production of 37,000 military planes in the next 18 months), the factory had grown to 325,000 sq. ft. By 1941 this figure was more than tripled—1,008,000 sq. ft.

The first powered assembly line ever used in an aircraft plant was put in operation at Downey in May, 1941. It was planned by Don I. Carroll, Vultee vice president for production, and General Manager Charles W. Perrelle. The system featured 25 cradles riding on an oval overhead track. Raw fuselage frames carried in the cradles passed through 25 assembly stations to receive electrical systems, cockpit enclosures, instrument panels and the like.

Leaving the track 40 hours later, the frame was ready to receive such major subassemblies as power packages, tail assemblies and wing center sections. *Fortune* magazine reported that the powered line and other changes had cut final assembly time on trainers 75 per cent, and reduced costs an estimated 40 per cent.

Additional conveyor systems were installed, two of them reaching all the way through subassembly departments into fabricating divisions. Powered final assembly lines later were installed at Nashville, and adopted by Consolidated at San Diego and Fort Worth, and by Ford at Willow Run.

Along with powered lines, Vultee also pioneered in the employment of advanced machine processes. Production time on wing ribs for the trainers was cut from 16 hours to five when Minster crank presses, using accurate steel dies, were substituted for drop hammers. An automatic rivet gun and bucking bar, yoked and suspended from a counterbalance, enabled one woman to accomplish the work formerly done by two men. Steel tube fuselage sections were finished nearly 12 times as fast after development of a master milling and drilling fixture.

By the fall of 1941, Vultee was employing nearly 10,000 workers at its three divisions, Downey, Nashville and Wayne, and had a backlog of $178 million in domestic and foreign military orders.

The purchase of Reuben Fleet's Consolidated Aircraft stock, contracted for in late November, brought about a near merger of the two companies under the direction of Aviation Corp, which owned 71 per cent of Vultee Aircraft and hence controlled both organizations. Tom M. Girdler was granted part-time leave from Republic Steel to serve as board chairman and chief executive officer of the companies. Under him as president of both was Harry Woodhead.

At San Diego I. M. Laddon became executive vice president and general manager of Consolidated and was elected a vice president of Vultee. David G. Fleet, a Consolidated director and son of its founder, was shifted to Downey as Vultee executive vice president in 1942.

To finance purchase of Fleet's holdings, Vultee sold 240,000 shares of preferred stock to underwriters for $5,430,000, and 150,000 shares of common stock to the parent Aviation Corp. for $1½ million. The company obtained an additional $2,350,000 from current funds or increased bank loans, and gave Fleet a promissory 3 per cent note for the remainder, $1,665,000. This was payable in cash or stock by June 30, 1942.

The mechanics of merging the corporations were worked out during 1942, and in January, 1943, directors of both approved a form of agreement having three main points: Consolidated would be the surviving corporation, its name changing to Consolidated Vultee Aircraft Corp. Consolidated's common stock would remain outstanding as CVAC common, with each share of Vultee common stock converting to 45/100th of a share of CVAC common, and Vultee preferred becoming CVAC preferred.

Stockholder meetings approved the proposal March 17, 1943, and it became effective when articles of incorporation were filed in Delaware the next day. The boards of directors were merged and the top executive team continued to be Girdler and Woodhead, with Laddon as executive vice president.

SD Engineers Elect Three Convair Men

No less than three Convair SD men last month were elected to office by the San Diego Chapter of the California Society of Professional Engineers.

New president is Joseph A. Lederer (Dept. 190), R. L. Fefferman (Dept. 6) is vice president, and J. R. Thayer (Dept. 6) is secretary. Main society purpose is advancement of "professionalism" in field of engineering.

Log Book Entries

Service Emblems

SAN DIEGO

Service emblems due during the period July 16 through July 31.

Twenty-year: Dept. 5, J. R. Mikulsky; Dept. 6-03, D. G. Moody; Dept. 7-40, P. R. Hoffman, H. D. Musick; Dept. 25-1, W. T. Collins, T. J. Cunnion Jr., H. E. Rolan; Dept. 31, W. E. Barnett, R. S. Bryan, D. D. Claxton, J. E. Hampsten, Bernard Hurley, H. W. W. Niermann, W. C. Pahl, V. H. Schade.

Dept. 110, T. R. McDaniel, S. B. Radford; Dept. 133, R. M. Joseph; Dept. 135, K. R. Erb; Dept. 139, Archie Stirling Jr.; Dept. 143, H. F. Horan; Dept. 188-6, G. C. Walsh.

Dept. 197-8, G. W. Turner; Dept. 223, K. W. Richey; Dept. 271-0, J. E. Cassidy; Dept. 288-3, F. B. Shockley; Dept. 400, E. H. Damarus; Dept. 401, J. L. Cortez, B. L. Creason, M. A. Murphy, J. W. Thatcher.

Fifteen-year: Dept. 3-3, Louise Thompson; Dept. 6-21, Dora B. L. Burke; Dept. 7, G. F. Hogan, J. V. Wahl; Dept. 25-9, J. W. Ratz; Dept. 31, L. E. Boggs, C. H. Bunker; Dept. 145, Tom Chong; Dept. 230, W. H. Bowler; Dept. 401-4, T. L. Baker.

Ten-year: Dept. 3-1, E. A. Ashmore; Dept. 6, R. H. Adams, R. L. Holt, C. L. McLaughlin, J. M. Polhamus, G. E. Shields; Dept. 7, George White, G. W. Wolfe; Dept. 8-1, R. D. Brumagin; Dept. 14, A. P. Medina, F. C. Woods Jr.

Dept. 25, C. W. Furbish, N. D. Hegwood, B. W. Mills, E. H. Minder, Marie N. Moorey, Burton Salesbury, R. E. Wells; Dept. 31, E. W. Mayfield, L. E. Roberts, W. J. Romo, J. L. Walter.

Dept. 44-3, F. M. Hart; Dept. 69-1, R. V. Sinnott Jr.; Dept. 102, R. F. Murphy, R. E. Vaughn; Dept. 109, Verna B. Salcedo; Dept. 110, H. C. Shaffer; Dept. 117, Henry Hurley; Dept. 123-0, E. O. Bracamonte; Dept. 133, LaNetta F. Underwood.

Dept. 135, F. W. Patterson, C. M. Riggs; Dept. 136, H. P. Enke, C. B. Moranville; Dept. 138, J. W. Fish; Dept. 143, C. D. Smith; Dept. 145, O. A. Oldenburg, R. E. Sandoval, R. J. Sharp, A. F. Tabeek, E. D. V. Teel, F. T. Torio.

Dept. 146, G. W. Carter, A. L. Nunez; Dept. 148-0, V. D. Ducheneaux, F. B. Hastings; Dept. 180, G. W. Lancaster; Dept. 188, C. S. Kuykendall, M. K. Kurtz, H. G. Noble; Dept. 192, J. L. Bershaw, M. S. Stepich.

Dept. 206, M. P. Machado; Dept. 215, W. F. Strickland, Josephine Wiencek; Dept. 216, Betty R. Snyder; Dept. 231, C. E. Garner, Onnal Otey; Dept. 232, F. G. Poirier, W. R. Walker.

Dept. 233, H. D. Hix, Isabelle W. Torres; Dept. 249, Adeline S. Barrett; Dept. 266, W. H. Cousineau, J. W. Hill; Dept. 280-0, Lula L. White; Dept. 288-3, R. L. Adams; Dept. 292-1, Lovelia F. Schools; Dept. 400, E. A. Harvey, Max Levenson, R. S. Shafer; Dept. 401, C. M. Harmon, E. T. Lawson, J. G. Slack, J. H. Thomas.

Retirements

SAN DIEGO

BARAJAS—Aurelio G., Dept. 25. Seniority date March 8, 1956, retirement effective June 30, 1960.

DEWEY—Peter A., Dept. 215. Seniority date Jan. 7, 1955, retirement effective July 8, 1960.

DIEBALD—Ambrose A., Dept. 3-1. Seniority date July 9, 1951, retirement effective June 30, 1960.

HILLS—Philip N., Dept. 95-0. Seniority date Jan. 2, 1952, retirement effective July 1, 1960.

MYERS—Guy E., Dept. 201. Seniority date Sept. 1, 1950, retirement effective June 28, 1960.

ROBINSON—John, Dept. 401. Seniority date May 18, 1951, retirement effective July 2, 1960.

SANDELL—Dwight L., Dept. 25. Seniority date Nov. 30, 1950, retirement effective June 20, 1960.

THOMPSON—Charles N., Dept. 401-4. Seniority date Aug. 17, 1949, retirement effective June 30, 1960.

WILLINGHAM—Joseph H., Dept. 25. Seniority date June 18, 1942, retirement effective July 8, 1960.

Promotions

SAN DIEGO

Promotions to or within supervision effective July 4.

Dept. 7-30, Electronics: To sr. electronics project engineer, J. L. Brooks.

Dept. 15-4, Customer Service: To service engineering asst. supervisor, R. D. Howard.

Dept. 44-0, Material Control: To material control supervisor, J. L. Richman. To material control asst. supervisor, A. L. Ratz.

Dept. 400-2, Tooling: To tool project supervisor, C. E. Taylor.

Personals

SAN DIEGO

The family of Allen L. Brown is grateful to Convair employees for the kind expressions of sympathy and the beautiful flowers. We thank you all.

Rose Brown

* * *

My deepest gratitude to the host of Convair friends for their welcome phone calls, cards of sympathy, and beautiful floral tributes at the loss of my husband, F. C. (Fritz) Ruhnow.

Della Ruhnow, Dept. 34

Births

SAN DIEGO

DAWSON—Daughter, Kathleen Joanne, 8 lbs., 14 oz., born June 11 to Mr. and Mrs. B. D. Dawson, Dept. 401.

GIEL—Son, Patrick Francis, 7 lbs., 11 oz., born June 28 to Mr. and Mrs. John Giel, Dept. 6-35.

MILKS—Daughter, Sharon Anne, 6 lbs., 9 oz., born July 6 to Mr. and Mrs. I. C. Milks, Dept. 215.

WADGINSKI—Son, James Francis, 8 lbs., 1 oz., born June 18 to Mr. and Mrs. R. J. Wadginski, Dept. 6.

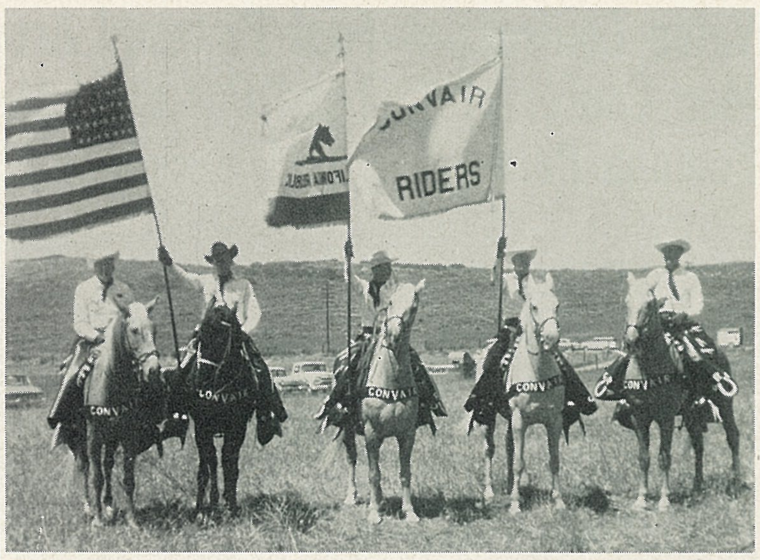
WAMSLEY—Daughter, Jeanette Louise, 10 lbs., born June 22 to Mr. and Mrs. Virgil P. Wamsley, Dept. 204.

Deaths

BROWN—Allen L., Dept. 271. Died June 24. Survived by wife, Rose; two daughters, Mrs. Miltreta D'Orazi, Mrs. Katherine Kinzel; sister, Mrs. Flora Kolbeck; eight grandchildren.

FILLER—Mary Elizabeth, Dept. 7. Died June 29. Survived by brother, Richard Filler.

MORGAN—Robert C., Dept. 6-31. Died July 8. Survived by wife, Laura; son, Stephen; daughter, Marilyn; mother; brother.



PARADE FAVORITES—Convair SD's mounted color guard is well-known group in San Diego area with more than 30 appearances to their credit in past 16 months. Members (from left): Jack Monks (Dept. 15), Luke Barbour (Dept. 138), Don Wescott (Dept. 8), Roy Sims (Dept. 280), Foster Kelly (Dept. 180). Not available for photo was rider Kip Brown (Dept. 8).

Convair's Mounted Color Guard Parade Favorite in SD Vicinity

Convair SD's mounted color guard is fast becoming a "fixture" in parades and festive civic functions in the San Diego area since reorganization early in 1959.

Typical was the recent July 4 weekend when Convair riders paraded their horses in Coronado on Monday and at a "Western Days" celebration in Poway Valley on Saturday.

According to Foster Kelly (Dept. 180), one of the guard's six members, preparing for an appearance is no small chore. "Not only do we have to make sure that our uniforms and equipment are in top shape," he said, "but we have to spend plenty of time getting horses 'parade perfect'."

Kelly estimates each color rider spends about six hours readying horses and cleaning equipment prior to each appearance.

Last year the group appeared in more than 22 parades. Bookings are piling up even more rapidly this year.

The guard is led by Luke Barbour (Dept. 138), mounted on a black horse with white trappings. The color scheme is just the opposite for the five palominos, carrying black saddles, bridles and collars, with only the "Convair" insert in white.

Riders sport white western hats, black ties, white shirts, black trousers, black and white chaps, black boots, black gun belts and holsters and guns with white handles.

In addition to Kelly and Barbour, members of the guard include Don "Shorty" Wescott (Dept. 8), Roy Sims (Dept. 280), Kip Brown (Dept. 8) and Jack Monks (Dept. 15).

Each of the palominos is privately-owned. Two are trained parade horses, the other three have been schooled for color guard work.

According to Kelly, much of the credit for the many trophies and ribbons that the group has won belongs to the riders' wives.

"They make the final inspection. If they approve, both horses and men can be assured that they're in tip-top shape."

SD, Astro Weeks On Fishing Barge At Reduced Price

Special bargain rates on separate weeks for SD and Astro folk to fish aboard the barge "California" off Mission Beach have been arranged by CRAs at each operating division.

Astro folk and members of their families will be eligible to take advantage of bargain rates ($2 per person) July 25 through July 29. The Convair SD week will be Aug. 1 through 5. Hours extend from 6 p.m. until midnight.

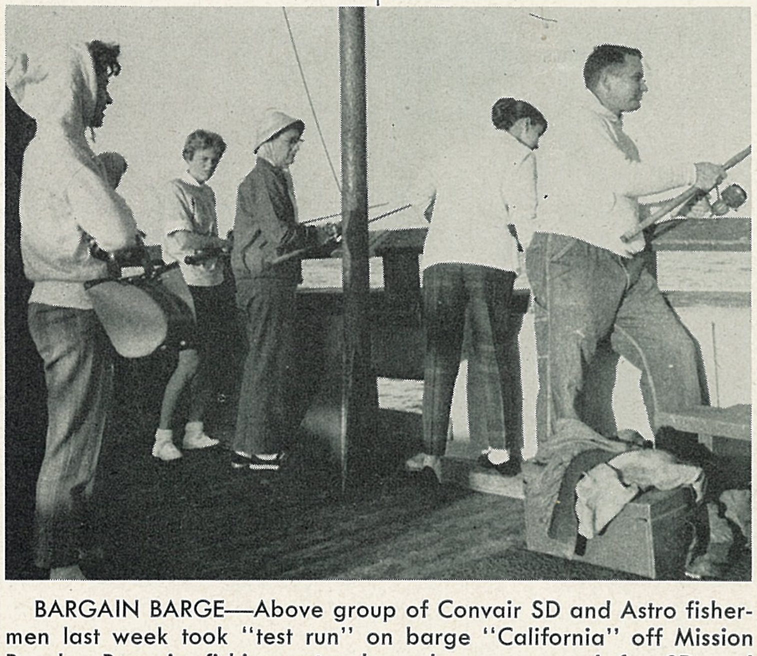
To qualify for the bargain rate, fishermen need only show their Convair ID cards. Transportation to the barge departs from the Mission Bay Sportfishing dock on Ventura Blvd. every two hours or on the hour as traffic dictates.

Rental fishing equipment is available on board the barge which can handle 294 anglers. Food, beverages are served, deck chairs and other services are available.

Keg League Forming In Escondido Area

Astronautics and Convair SD bowlers in the Fallbrook, Escondido and Poway areas have been invited to join a new fall bowling league now being organized.

League play will begin in September at Escondido Bowl. Those interested in participating may contact Jack Boyle at CY-7-3701, ext. 58; Hal Purnell, Astro, ext. 1314, or Larry Hartshorne, Astro ext. 1301.



BARGAIN BARGE—Above group of Convair SD and Astro fishermen last week took "test run" on barge "California" off Mission Beach. Bargain fishing rates have been arranged for SD and Astro folk on separate weeks. Photo by Bob Craft.

European Jaunt Deadline Nearing For SD and Astro

Only five days remain for Convair SD and Astro folk to make reservations for a three-week trip to Europe being presented by Convair Management Club.

The trip, Sept. 17 through Oct. 9, is open to all Convair employees who qualify for a three-week vacation and obtain their supervisor's approval for vacation during the specified dates.

Costs of air transportation vary, depending upon number of passengers signing for flight. With full passenger-load of 120 the round-trip cost is $320. If only 70 passengers reserve seats the price increases to $545.

Travelers will leave Los Angeles via SAS scheduled jet flight to Copenhagen; return is scheduled via SAS pet chartered flight over the Polar Route.

A main tour of Europe and two independent tours are also offered those interested.

Brochures containing complete details of flight and tours can be obtained at employee services, both SD and Astro.

Reservations and deposits must be made before July 25. Those taking air transportation only must post $150. Deposit for tour takers, either the main or optional independent tours, is $300.

In the event a sufficient number of persons fail to sign up for the trip it will be cancelled.

Two-Day Trap Shoot Planned

Another registered trap shoot sponsored by Convair Gun Club at the CRA Range, Gillespie Field, is scheduled Saturday and Sunday (July 30-31).

American Trapshooting Association rules will be in force and scores will be included in the official records, according to Jack Swank, SD CRA commissioner.

Action on Saturday will start at 11 a.m. with 100 16-yard targets planned for the first event. The second event, later in the day, will consist of 100 handicap targets.

Sunday competition will start at 9 a.m. with 100 more 16-yard targets, followed by 100 handicap targets and 25 pair doubles. Trophies will be awarded in all classes. Special trophies are planned for high lady and high junior scores.

In addition, shooters can compete for purses and take options in different events if they wish. An ATA fee of $1 will be charged each day. Shells will be available at the range, however, shooters may use their own provided they conform with ATA rules.

Ruscigno New Prexy Of SD Delta Divers

Harry Ruscigno (Dept. 6) was elected president of the SD Delta Divers June 28 and Bonnie Wood (Dept. 25) is the group's new vice president.

Rounding out the slate is Bob Thayer (Dept. 6), treasurer, and Barbara Mitchell, secretary.

On June 26 a team of Delta Divers took part in the National Underwater Spearfishing Championships at Laguna Beach, finishing about midway among more than 14 teams.

Members of the team included Ruscigno, Bob Casebolt and Derek Walton (all Dept. 6).

"ON THE TOWN" DANCES CANCELLED BY COUNCIL

"On the Town" dances in the El Cortez Caribbean Room have been cancelled until September, Industrial Recreation Council of San Diego announced last week.

Is It News?

Call Convairiety

Toastmasters Tour Mission

A guided tour through Mission San Diego de Alcala highlighted the July 11 meeting of Convair Toastmasters #457.

At the dinner meeting, chairmanned by James Carr of Astro, speakers were Earl Patrick, Irv Van Horn, Til Schaefer, all Convair SD Dept. 6, and Ray Sodomka of Astro engineering. Toastmaster was Chuck Willits (Dept. 6) who won award for best performance of the evening.

Sodomka was judged best speaker and Cy Campbell of Astro, best table topic extemporaneous speaker.

In charge of meeting arrangements were Don O'Neil of Dept. 7 and Earl Erickson (Dept. 6).

Convair Toastmasters were guests of the Northshore club at a July 7 joint meeting at Aztec Steak House. Thirty Toastmasters attended.

Convair men, from both clubs, taking part were Bob Leffler (Dept. 6), toastmaster, and Chuck Glower of Astro, who took best speaker honors. Both belong to the Northshore club. Earl Erickson (Dept. 6), as general evaluator, was judged best performer of the evening.

Speakers from the Convair group were Tom East and Andy Gormish, both Dept. 6. Duane Johnson (Dept. 6) was topic master; Til Schaefer (Dept. 6), grammarian; Don O'Neil (Dept. 7), sergeant at arms.

The Convair group was due to go beachcombing at this Monday's meeting with a beach party at the Bahia in Mission Bay. Anyone in Convair SD or Astro interested in attending Monday evening meetings is urged to contact Johnson at ext. 2320, SD Plant 1.

Convair Men in Top Toastmaster Posts

Two Convair men have been named to top offices in Toastmasters International area and district organizations following recent elections.

Harry V. Morgan, senior research engineer at Convair SD, was installed new governor of Area #5 which includes all Toastmaster clubs in San Diego at July 10 ceremonies in the Town and Country Hotel.

Also installed at the same time was Cyril C. Campbell, design specialist in Astronautics reliability, who will serve as secretary of District #5. This district is composed of eight areas in San Diego and Imperial Counties and about 40 clubs.

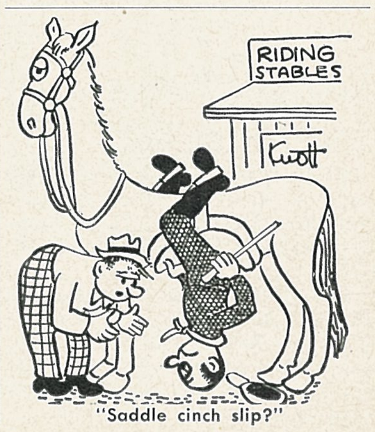
Both Morgan and Campbell are active in Convair Toastmasters Club #457.

Rifle 'Sight in' Set At Valley Gun Club

Gun enthusiasts from Convair SD and Astro will have an opportunity to "sight in" rifles July 30 and 31 at the Valley Gun Club on Cuyamaca Rd., north of the CRA Range.

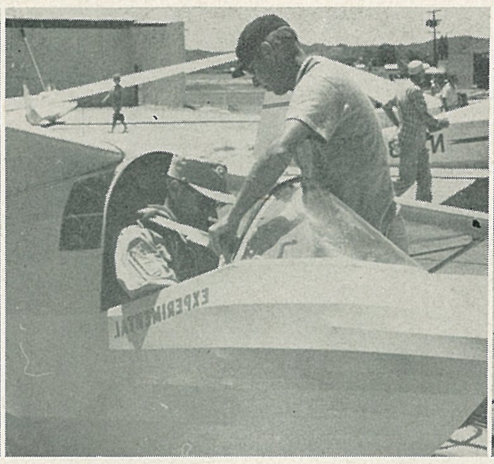
Deer hunters especially will want to take advantage of the service offered through CRA arrangements. Cost per gun will be $1.50 and each shooter should bring his own ammunition.

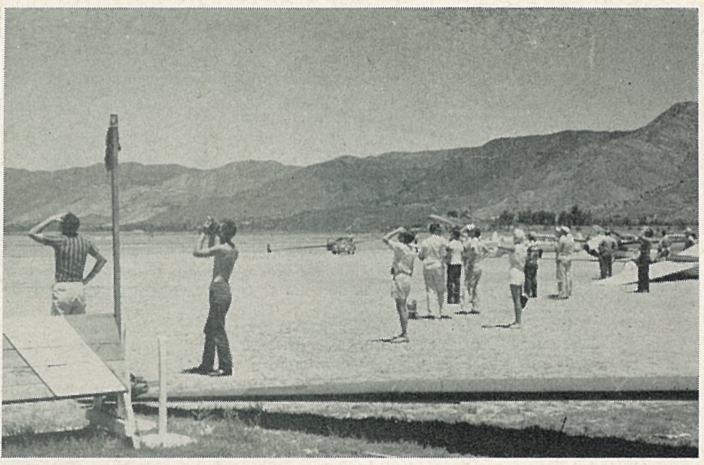
Range "sight in" positions will be from 100, 200 and 300 yards. Hours will be daylight to dawn both days, instructors will be ready to assist, and targets will be furnished.



"Saddle cinch slip?"







GLIDING ALONG—Wilting temperatures near 100 mark limited crowds and unfavorable wind conditions slowed glider pilots at competition at Skylark Field in Elsinore over Fourth of July weekend. In left photo is John Williams (Dept. 7) who finished third in meet held on "total point" basis. In plane, preparing for flight in center photo, is Convair SD's Ted Sanford. Meet winner was Sterling Starr, former CRA Glider Club president. Carl Stark (Dept. 190) flew towplane all three days.

'Field Day '60,' Top Event, Set Aug. 14 by SD Car Club

Acceleration and braking tests, time trials, gymkhana and slalom will be featured events during "Field Day '60" on Aug. 14 at Hourglass Field presented by Convair SD Sports Car Club.

A championship event for the San Diego Council of Sports Car Clubs, the CRA-sponsored meet is expected to draw one of the year's record sports car entry fields.

Field day activity will start with a technical inspection at 8 a.m. Entrants will be required to run in three of the four events and the new Asebring Scoring System will be employed.

Dash plaques will be given the first 100 entrants, those finishing in the first through 10th overall positions will receive trophies, and special plaques are planned for the next five overall positions.

Only sports class vehicles (those clearly designed to accommodate two adults only, whether fixed or drop-head top) will be permitted to enter events.

Additional field day information can be obtained by contacting Tom Kienholz, CO-2-7727, field marshal.

Club members heading committees are Skip Carpenter, time trials; Bob Dunn, slalom; Bill Newberry, gymkhana; Kim Hom, acceleration and braking; Gil Wright, facilities; Peter Aperlo, awards; Sid Weiner, safety inspection; and Tommy Jackson, publicity.

Hornburg Hits Shoot 'Double'

Carl Hornburg (Dept. 139) tallied identical 292 scores in the master class and Short National to win both events July 10 at a Convair SD Pistol Club shoot.

The double sweep was a "first" for Hornburg who has been improving steadily for some time in SD pistol competition, according to Ash Bishop, CRA commissioner.

Ranked second and third in the Short National event were J. B. Carroll (Dept. 3-1) with 286 points and B. L. Broadway (Dept. 115) with 284 points. Carroll also placed second in the master class.

W. G. Walker (Dept. 6) scored 286 points in the expert class to place first. Ralph Benson (Mrs. Benson is in Dept. 250) was second with 280.

Dale Young (Dept. 31) placed first and A. B. Carlson (Dept. 68) was second in the sharpshooter class. Harvey Ingalls (Dept. 6) led the marksman category, followed by H. W. Holmerud (Dept. 3).

Camp Programs Set By SD City, County

A limited number of registration cards are available at Convair SD employee services, Plant 1, for a summer camping program now under way at Camp Cuyamaca for boys and girls between 8 and 13.

The camp is sponsored jointly by the city and county of San Diego and administered by the San Diego city-county camp commission.

Total cost for a week's camping at Camp Cuyamaca is $19.35. Complete information may be obtained from the camp commission office in the Civic Center, or by phoning BE-9-7711, ext. 521.

Information can also be obtained concerning a Palomar Mountain family camping program which will start Aug. 10.

SD Son Sets Record In Formula K Event

A new lap record in the Junior Super A Division was set July 10 by Formula K driver Robin Gutridge, 9-year-old son of Gene Gutridge (SD Dept. 3-1).

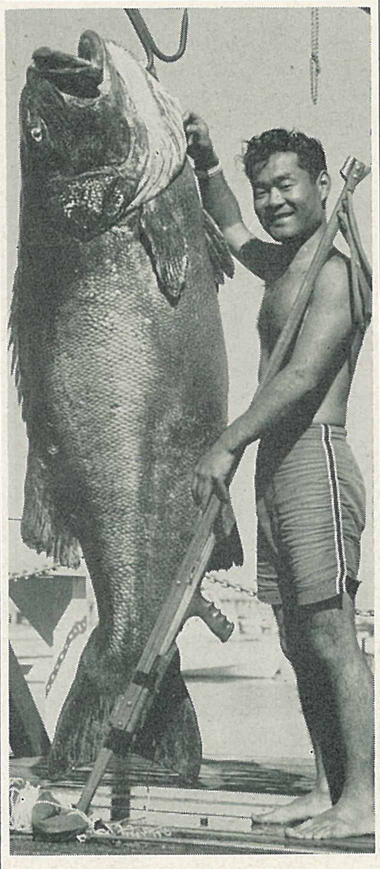
The youngster bettered by almost a full second the existing record, touring the Astro track in 37.1 seconds. He has already won several racing trophies and last year competed in Formula K national events in Los Angeles.

Star-Light Tickets Available Tomorrow

Convair San Diego people can buy tickets to the next Star-Light Opera performance at reduced prices when they go on sale tomorrow (July 21) at SD employee services, both plants.

Tickets to Aug. 7, Convair night, showing of "Vagabond King," will cost Convair SD folk $2.45 for $3.50 seats, a discount of 30 per cent through CRA arrangements.

There are still a few tickets left to "Paint Your Wagon," at the same price, for the July 24 performance.



WHOPPER—Sets Fukuno (Dept. 98-5) poses with 260-lb. black sea bass speared off La Jolla shore over Fourth of July weekend. Fukuno's catch, big as it is, is far short of record, 464½ pounds, held by Convair SD photographer Ron Church.

CRA Sports & Recreation Convairiety

Eagles Win Championship Playoff, Defeat Southeast Merchants 11-0

A hard-hitting squad of Convair Eagles backed up pitcher Jerry Stryker's sparkling one-hit shutout July 10 to turn back the Southeast Merchants 11-0 and take the first round championship in the San Diego Amateur Softball Association League.

The Eagles made each of their 11 hits pay off in the run column in a game that formally launched National Softball Week in San Diego. More than 500 fans witnessed the shellacking.

To earn a bid for the playoff game the Eagles clipped Rohr 4-0, giving the Convair squad a 6 and 2 record, the same as posted by the Southeast Merchants.

Convair SD Rose Canyon softballers, though not in contention for the SCMAF league lead, threw standings into a tizzy last week when they surprised the league's top team, Shell Oil, in a 4-3 contest.

First-round play has officially wound up in both of Convair SD's shop leagues.

In the National League Dept. 135 Fuselage ended the first round in first place with a 5 and 1 record. Pitcher "Tak" Takashita is undefeated thus far in league play. Last week he shut out Dept. 6 Flite 4-0 to start Dept. 135 off on the right foot in the second round.

First-round titleholder in the American League is Dept. 280 Mock-up with a perfect record of 6 and 0. Their latest first-round wins were over Dept. 233, 13-1, and Dept. 6 Dynamics, 5-0.

FILM ON MEXICO SET FOR SPANISH CLASS, OTHERS INTERESTED

"Beautiful Mexico," a 45-minute film in color, will be screened by students in CRA-sponsored Spanish class next Thursday (July 28) at 7:15 p.m. in Room 5 of the Balboa Park Conference Bldg.

Interested Convair SD persons are invited to attend the showing, according to Jim Hardison (Dept. 15), instructor.

Additional reservations are still being accepted for a 14-day trip to Mexico City and Acapulco, with travelers scheduled to leave Tijuana Aug. 20.

Regular Thursday evening classes are being conducted which review in detail each leg of the trip. In Mexico City, travelers will have their choice of either boarding in the homes of Spanish people as "students," or making regular hotel accommodations.

Coupons Cut Prices For 'Story of Ruth'

Discount exchange coupons for "The Story of Ruth," now playing at the Fox Theater, 7th and B St., are available at Convair SD employee services, both plants.

With coupons a general admission-price seat, regularly $1.75, can be obtained for $1.25; $2 loge seats can be purchased for $1.49.

Coupons can be used any day and at any performance. In CinemaScope and color, the Biblical film stars Stuart Whitman, Tom Tryon, Peggy Wood, Viveca Lindfors, Jeff Morrow and Elana Eden.

Convair Golfer, 65, Shoots Hole-in-One

Ed E. Robichau (Dept. 288) last week became only the second golfer ever to ace the 216-yd., 17th hole at Admiral Baker Field in Mission Valley.

Robichau, at 65, is probably one of the most senior golfers in the city to record an ace this year.

He expects to retire in the near future and concentrate on more holes-in-one, according to Jack Mayer (Dept. 223) and Bob Roberts (Dept. 288), who witnessed the shot this month.

Dahlia Entries To Head Show

Emphasis will be on dahlias Sunday (Aug. 14) when Convair SD Garden Club stages its annual Summer Show in the Balboa Park Floral Association Bldg.

Thirty-two classes have been reserved for dahlia entries in four main categories: large blooms, cacti or semi-cacti, three pompons, three miniature or balls.

All specimen entries must be grown by exhibitors, E. L. Zimmerman, commissioner, reminded. Entry blanks are available at employee services, Plants 1 and 2.

Other divisions open at the CRA show will be fruits, vegetables, flower arrangements and corsages. Young gardeners will exhibit in two classes, 5 to 11 years, and 12 to 16 years.

Entries will be accepted the morning of the show from 7:30 a.m. to 11 a.m., doors will be open to the public between 1 and 6 p.m.

Herb Wexler Elected Ski Club Commodore

Convair SD Water Ski Club this month elected Herb Wexler (Dept. 6) commodore and Harry Whiting (Dept. 190), secretary-treasurer.

Ski sessions are continuing at Tierra del Fuego Saturdays and Sundays from 9 a.m. to 1 p.m. with free instruction offered interested Convair SD persons.

Conversion of the club's outboard boat to a 160-hp inboard is scheduled for completion late this month.

Entries Open For CRA Golf

Entries open today (July 20) for Convair SD's next CRA golf sweeps at Coronado Aug. 6-7, Ken Wulfemeyer, golf commissioner, reports.

Deadline for entries in the August tourney is July 29, reservations are being taken at ext. 1705, Plant 1. Wulfemeyer also reminded SD golfers to reserve the first three Sundays in September for the 54-hole match play Convair SD plant championship.

Stan Gmyr (Dept. 15), who won the Convair Golf Club match play championship in June, ran his tourney streak to two straight, winning low gross in the CRA sweeps July 9-10 at Caliente.

Second low gross in the 0-14 handicap group went to Wayne Hines (Dept. 180). First and second low net were taken by C. Maikish (Dept. 190) and Dick Ramsdale (Dept. 267).

Fred Wells (Dept. 3) took low gross in the 15-19 handicap bracket, followed by D. Hudson (Dept. 6). Charles Roy (Dept. 401) stroked for low net and S. Campbell (Dept. 6) was second.

In the third handicap group, low gross prizes went to B. North (Dept. 6) and George Thiersh (Dept. 8). Low netters were Wayne Turner (Dept. 3) and Al Stevenson (Dept. 180).

CRA Calendar

(Convair SD Recreation Association has some 40 activities in operation. For information on SD sports, call CRA headquarters, ext. 1245, Plant 1).

★ ★ ★

BADMINTON—Open play for families Tuesday evenings at 7:30 p.m. in Balboa Park Federal Bldg.

BOWLING—Registration open for winter keg play. Contact Jim Hayman, ext. 1155, Plant 1; or Mike Brooks, ext. 583, Plant 2.

DELTA DIVERS—Movie, "Discovery in Bermuda," to be shown Tuesday (July 26) at meeting, 7:30 p.m., Balboa Park Conference Bldg.

GARDEN CLUB — Summer Show Aug. 14, Floral Assn. Bldg.

GUN CLUB — Registered trap shoot July 30-31, CRA Range, Gillespie Field. Rifle "sight in" July 30-31, dawn to dark, Valley Gun Club, Cuyamaca Rd., north of CRA Range.

ICE SKATING—Convair night every Thursday; discount rates between 6:30 and 8 p.m., at Iceland, 6055 Lake Murray Blvd.

MOVIES — Reduced-price movies Tuesday and Friday evenings at Academy Theater, 3721 University Ave.

PISTOL CLUB — Next shoot Sunday (July 24), 9:30 a.m., San Diego Police Pistol Range.

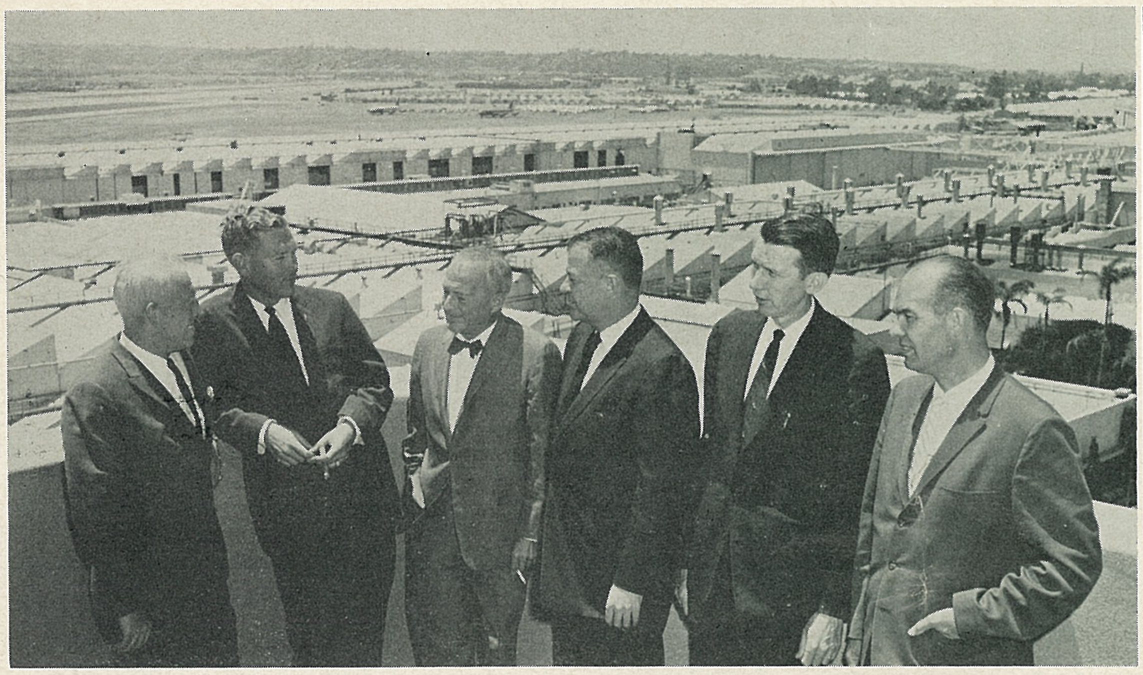
RADIO CLUB — Meeting tomorrow (July 21), 7:30 p.m., CRA Harbor Drive headquarters.

RIDING CLUB — Poway trail ride and steak fry July 24.

SPANISH CLASS — Film, "Beautiful Mexico," July 28, 7:15 p.m., Room 5, Balboa Park Conference Bldg.

SPORTS CAR CLUB — "Field Day '60," Aug. 14, Hourglass Field; time trials, 8 a.m.

WATER SKI CLUB — Skiing sessions, free instructions, Saturdays and Sundays, 9 a.m. to 1 p.m., Tierra del Fuego, Mission Bay.



OVERLOOKING SD—Convair division managers, who met at San Diego this month, are shown with August C. Esenwein, executive vice president, atop Bldg. 19, overlooking SD Plant 1. From left, Charles F. Horne of Pomona, J. R. Dempsey of Astronautics, Esenwein, Frank W. Davis of Fort Worth, J. E. Arnold of Daingerfield, Robert C. Loomis of San Diego.

All Engineers, Division Managers Find They Have Other Careers in Common

When Convair operating division managers and the Convair executive vice president started comparing personal career notes recently during a monthly meeting they found a lot in common. Among the parallels:

All were educated in some line of engineering.

August C. Esenwein, executive vice president, Yale, 1927, BS in electrical engineering and BS in industrial engineering.

James E. Arnold (Daingerfield manager), Michigan State, 1933, BS in industrial metallurgy, 1934, MS in mechanical engineering.

Frank W. Davis (Fort Worth manager), California Institute of Technology, 1936, BS in mechanical engineering.

J. R. Dempsey (Astronautics manager), U. S. Military Academy, 1942, BS, University of Michigan, 1947, MS, aeronautical engineering.

Charles F. Horne (Pomona manager), U. S. Naval Academy, 1926, BS, Harvard, 1935, MS in communications and electronics.

Robert C. Loomis (San Diego manager), University of California, 1935, BS in mechanical engineering.

Five of the six have been pilots and several still keep active licenses.

Esenwein, by far the senior flyer, holds license No. 4399, dated Nov. 3, 1928, the year after he was graduated from college. As head of a company he formed in Buffalo, N. Y., which he equipped with such planes as Waco 9 and 10, an Eaglerock and an early Stinson, he flew passengers over Niagara Falls (at $25 a 25-minute trip), crop dusted, barn stormed and flew stunt men. He knew and worked on airplanes for famous aviators of the time, Lindbergh, Amelia Earhart, Eddie Stinson, Doolittle. Since then he has rarely been far from airplanes. He still takes the controls once in a while.

Davis, former Navy and Marine Corps flyer, was test pilot for Vultee at Downey, Calif., beginning in 1940 and gained considerable reputation during the war years. It has been said that no experimental airplane personally tested and flown by Davis ever had an accident. His "trade mark" was a four-leaf clover in a Convair badge frame which he placed in each airplane at delivery. He was first to fly a turboprop airplane (the experimental fighter XP-81, which he helped design). He made most of the ship's 47 flights. At that time (1945-46) it was the world's most powerful fighter, capable of 500 mph.

Dempsey won his wings in the Air Corps (1942) and held a senior pilot rating, flying wartime fighters and also holding multi-engine ratings. Interested in flying from boyhood, Dempsey once built a model rocket plane fashioned of aluminum tube and powered by gun powder. First flight was a success but the plane blew up on the second.

While serving as acting director of the Federal Airways Division, Horne earned his civilian pilot's license (at his own expense) in 1950. He at one time held a commercial license but currently carries a private license. He still takes up a plane occasionally.

Loomis received his wings in the Navy shortly after he was graduated from college and for the next 15 years, in and out of the service, he was rarely far from flying. During eight years with TWA he flew as an engineering pilot while directing engine and maintenance overhaul for the airline. He continued flying after joining Convair at San Diego, was co-pilot on the first flight of the XP5Y-1 and flew many missions in the Convair Turboliner. He was co-pilot on the delivery flight of the XC-99.

Five of the six have been in the armed services, three during wartime.

Esenwein joined the Air Corps early in 1942 and was assigned to Albuquerque's "Depot Training Station" where groups were trained to be sent overseas as a unit for air field operation. He was in charge of all technical training for the engine and aircraft maintenance personnel. When he left the service in 1946 he was a lieutenant colonel, chief of maintenance at San Bernardino, Calif., Air Depot. Esenwein's wartime flying was brief but harrowing. At Albuquerque there was an aging Ryan monoplane for static training, not for flying. However, Esenwein flew it. Vastly underpowered, particularly in that high altitude, it took 6,000 ft. of runway to get into the air and 30 miles to climb to 200 ft.!

Dempsey's war career was in the European theater where he was flight leader of a P-38 reconnaissance squadron. He flew 43 missions and was the first to photograph at low level the Siegfried line. His decorations include the Distinguished Flying Cross. Postwar service years were spent in the AF's Guided Missile School, in the Pentagon, ultimately as chief of guided missile projects. When he left the service in 1953 to join Convair he was operations officer of the missile test range at Cape Canaveral.

Horne, a career Navy officer and a pioneer in application of electronic concepts in the U. S. Navy, during World War II was communications and radar officer, Battleships, Pacific Fleet; communications officer, South Pacific Area; communications and radar officer, Amphibious Forces Pacific. His decorations include Legion of Merit with star and Combat V. He retired in 1951 as a rear admiral.

High-Flying Balloons Probe Secrets of Sun

A small group of Convair scientists is patiently waiting for the sun to "explode."

When it does, Dr. J. I. Vette and a task force from Convair's Scientific Research Laboratory at Astronautics will hastily gather up some unusual equipment and travel to Yuma, Ariz. A short time later they will send a tissue-thin polyethylene balloon aloft with a payload of instruments.

Rising rapidly to the edge of space, the balloon will send back information and measurements of gamma radiation associated with the solar phenomena.

"There is nothing unusual about solar 'explosions'," Dr. Vette explained. "They occur frequently.

"One kind we call a 'solar flare.' This is a great mass of flaming solar gasses which suddenly becomes intensely illuminated. In many instances, radio noise storms and the ejection of matter into space accompanies the flares."

Dr. Vette's group has been making studies of this nature since last December as a "pure science" project. Early flights were made from Camp Pendleton. Since April, operations have been shifted to the Army Test Center at Yuma, to prevent summer high altitude winds from carrying the equipment into the ocean.

Balloons used are either 86 or 128 feet in diameter and are filled with helium. The tear-shaped bags carry aloft payloads weighing 100 pounds, of which 80 pounds are instrumentation.

(Balloons are used instead of satellites for this study because they are cheaper. Rockets, while not so costly as satellites, can be used, but their value is limited by their short flight duration.)

The balloons require about two hours to rise to their working altitude of 100,000 to 130,000 feet, but must climb at least 44,000 feet in the first 100 minutes to comply with Federal Aviation Administration rulings regarding airway obstruction. If this requirement is not met, the instrument package is released from the balloon and parachutes back to earth.

If all goes well on the flight, instruments begin their work. Sun-powered cells drive a "solar tracker" which points toward the sun at all times. A "sodium iodide scintillation detector" then seeks out gamma radiation. Minute radiation particles are detected, amplified and information fed into a telemetering device. This, in turn, sends information to recording instruments manned by the ground crew.

A second transmitter relays information on temperatures and balloon altitude, and reports on the solar tracker's accuracy.

Both transmitters aid scientists in tracking the balloon's flight, as it often soars well beyond visual range.

At the end of the flight, the instrument package is separated from the balloon and parachutes to earth. As it descends, an aircraft sights the falling package and follows it to aid recovery.

Recorded data is carefully analyzed after each flight.

"While we are conducting the project as a purely scientific effort, some of our findings may prove important to future manned space flight," Dr. Vette indicated.

Two of three flights conducted to date have been successful, and early problems have been ironed out, making prospects for the project promising, he reports.

C. C. (Bud) Love, Dept. 593, pilots the observing aircraft, a Cessna 172 from Montgomery Field, which follows the balloon at about 10,000 feet. Dr. W. C. Erickson, staff scientist, flys as observer, assisted by technician Paul Bressenden.

Assisting Dr. Vette at the launch site are Fred Casal, staff scientist, and technicians Rod Jerde and Orley Neller. Jack Warren is official "launcher" and weatherman. John Hubbard, electronics engineer, and technician Wayne White also take part frequently, as do others from the Scientific Research Laboratory, who are "drafted" as needed.

Cadets on Duty At F-106 Base

Flights in Convair's F-106 jet interceptor recently climaxed a two-week training period for six Air Force Academy cadets at Minot AFB, N. D.

Called "Operation 3rd Lieutenant," from rating of Academy cadets, the program was set up to give them experience in performance of duties and responsibilities of junior officers in AF squadrons. During their stay at Minot, cadets followed the daily routine of 5th Fighter-Interceptor Squadron personnel.

Their F-106 rides were interceptor missions on airborne targets at altitudes of 41,000 feet and speeds up to Mach 1.5. Two of the cadets, James A. Cassidy and Robert G. Bull, were taken to supersonic speeds. Maj. Gordon H. Scott, 5th FIS commander, piloted the first Mach 2 flight for the young airmen.

Convair SD representatives at the Minot base, D. W. St. Pierre, F. P. Cuneo, SD field service reps, and Tom Petitt, logistic support rep, handed out mementos.

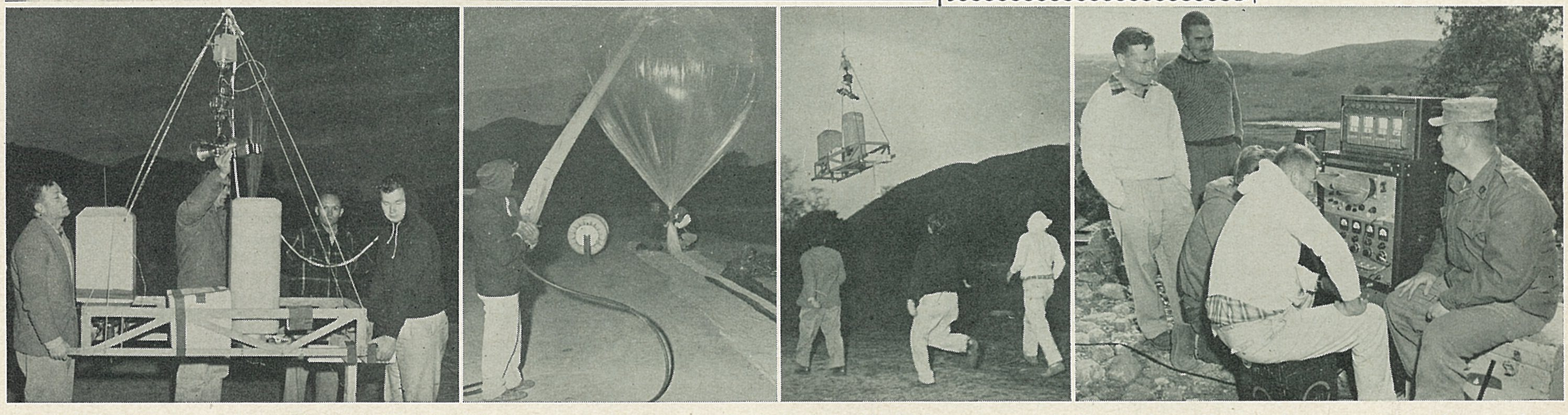
Certificates commemorating their Mach 2 flights will go to Cassidy and Bull with Gene Schendel, Convair SD field service representative at Ent AFB, Colorado Springs, Colo., scheduled to make the presentation.

Mrs. Veva Harrison Promoted to Major

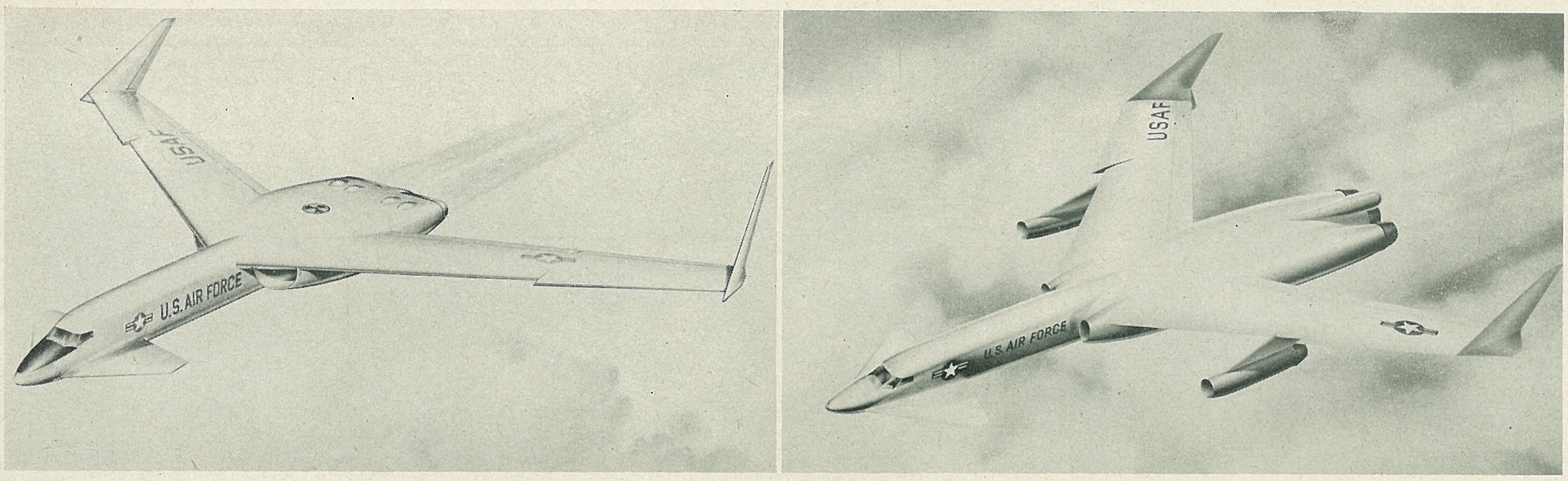
Mrs. Veva Harrison of Astronautics' Dept. 531-3 was recently promoted to the rank of major in the Civil Air Patrol, the only woman to hold the rank in the San Diego area.

As senior personnel officer of the CAP Group III Headquarters, Veva is one of only six majors in the local group.

She holds the rating of aeronautical observer, earned in 1951.



BALLOONISTS—At left, waiting for lift-off of instrument package, are Fred Casal, staff scientist, Drs. Dave Jameson and Frank Petty of San Diego State College, and technician Wayne White. Doctors were present because this flight carried package of insects to test effects of altitude on them. Left center, helium is fed into balloon as handlers release it bit by bit. When bag is filled umbilicus is tied off. Right center, as balloon takes off ground crew races to clear package from obstructions. At right, Casal; Tom Kettner; Rod Jerde; Dr. Jim Vette, staff scientist; M/Sgt. Mooney of Camp Pendleton who assisted, surrounding ground receiving station. Convair scientists are making studies during solar "explosions" to gather data on gamma radiation.—Marine Corps photos.



ATOMS IN FLIGHT—Two artist's drawings show two versions of atomic powered airplane being designed at Convair Fort Worth. At left model is powered by in-direct-cycle nuclear engines mounted in tail. At right is version powered by direct-air-cycle engines, plus two jet engines mounted in pods beneath wing.

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SAN DIEGO, POMONA, ANTELOPE VALLEY, CALIF. — ASTRONAUTICS OFF-SITE BASES, FORT WORTH, TEX.

Delta Inaugurates Chicago 880 Service

Delta Air Lines, first commercial user of Convair jet transports, inaugurated three new 880 airliner flights connecting Chicago with four other cities this week.

Flights began Monday (Aug. 1) from Chicago to Houston, Memphis, New Orleans, and Atlanta.

First 880 passenger service was started May 15 when Delta planes began non-stop flights between New York and New Orleans, Atlanta, and Houston. On July 1 Delta placed 880s in round-trip service between Dallas, Atlanta, and New York, and an evening coach service over the New York-New Orleans-Houston route.

Latest expansion of 880 service makes a total of 16 Convair airliner flights each day between major Eastern and Midwestern cities. Round-trip flights include: New York to Atlanta; Chicago to Atlanta; Dallas to Atlanta; New Orleans to New York; Chicago to Memphis to New Orleans; Houston to New York; and Chicago to Houston.

Four 880s are flying a total of 15,938 miles daily on Delta Air Lines routes. A fifth 880 is going to Delta early this month.

Nine of the all-white Convair jet transports will be in operation over Delta routes this year with three more to go to the airline in 1961.

Convair 880 service to Washington and Baltimore, Detroit, St. Louis, Cincinnati, Tampa, Miami and other cities will be inaugurated by Delta as additional 880s are delivered from the Convair San Diego plant.

With the move to its new terminal at Idlewild Airport, Delta is the first domestic carrier to go to all-jet operations out of the New York air field.

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Convair San Diego transport service field representatives supporting 880s in service with Delta are Robert Fitzgerald and John Nowak at Atlanta; Henry Morgan at New York; Court Zeiss at Chicago; and Harry Addis at Memphis.

New Cafeteria To Serve First Meals Monday

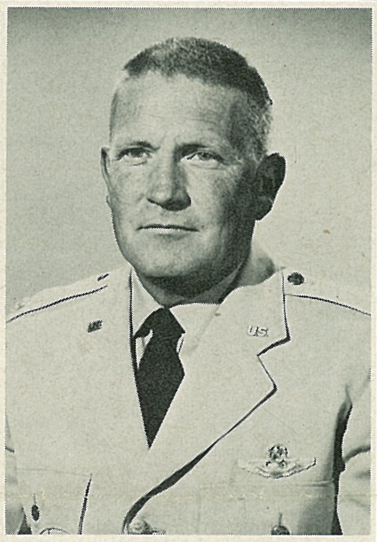
First meals are expected to be served in Convair SD's new half-million dollar cafeteria on Pacific Hwy. next Monday (Aug. 8).

There is every indication that the cafeteria will be ready for the Monday opening, H. A. Smith, SD chief plant engineer, said last week.

A special pre-opening dedication ceremony and tour is planned at noon this Friday (Aug. 5) for 100 civic leaders, contractors' representatives, and cafeteria operators.

D. C. Wilkens Jr., SD manager of industrial relations, will be master of ceremonies at the dedication, and Smith will conduct the tour.

Present plans call for the old cafeteria, adjacent to the new structure, to be razed and the area used as a parking lot.



NEW AFPR — Lt. Col. C. W. Atterholt, has assumed duties as new AF plant representative at Convair SD.

LT. COL. ATTERHOLT TAKES OVER AT SD AS AF PLANT REP.

Lt. Col. Charles W. Atterholt assumed his new post as Air Force plant representative at Convair San Diego July 19.

He succeeds Col. George E. Bostwick, AF plant representative since 1956, who reports for duty with Air Materiel Force European Area in Chateauroux, France.

Lt. Col. Atterholt, a native of Lisbon, Ohio, joined the Air Force in 1941. During World War II he served with the Flying Training Command and flew 30 bomber missions in the European Theater of Operations.

Assigned to Air Materiel Command in 1946, he served first in the personnel field, then in procurement at Headquarters AMC, Wright-Patterson AFB, Ohio, from 1949 to 1952.

He was later director of procurement and production at Gadsden AF Depot, Alabama. He came to his Convair assignment from Chateauroux, France, where he was serving as chief of central procurement for Headquarters AMFEA.

Two Engine Types Being Developed For Atomic Plane

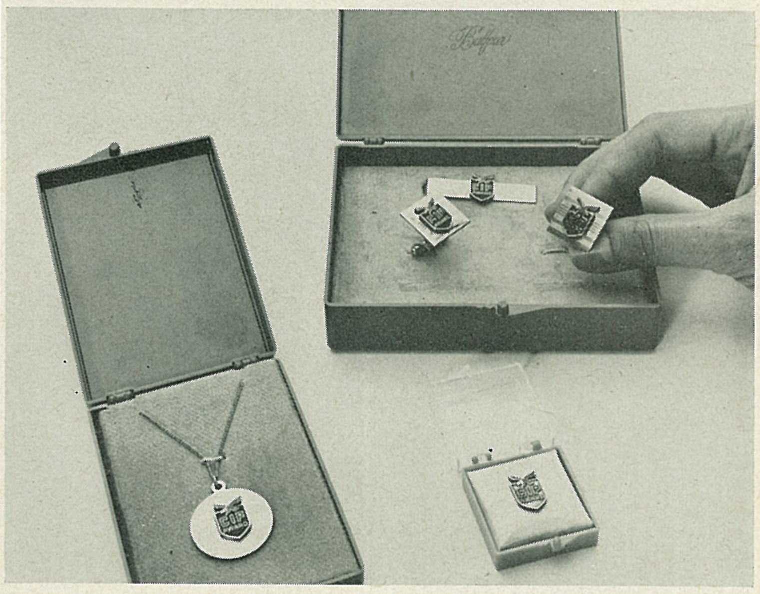
A few design study details for a nuclear-powered aircraft, under study by Convair at Fort Worth since 1951, were revealed last week by the Air Force and Convair.

Drawings showed two swept-wing planes, each having an assembly of jet-like engines mounted in the tail of the fuselage. This style is one of several possible configurations under study at Fort Worth where nuclear research is conducted for the AF.

The canard-type planes lack conventional tails. (Canard is defined as "a type of pusher aircraft having elevator, rudder etc., in front of supporting planes.") At each wing tip is a vertical stabilizer-rudder assembly. The horizontal stabilizer-elevator surfaces are placed far forward on the fuselage, like stubby wings.

One design is for the direct-air-cycle nuclear engines, a type under development by General Electric Co. The drawing for this aircraft shows a pair of conventional jet engines mounted under

(Continued on Page 2)



BONUS PRIZES—Under new program which started this month first ESs or CIPs submitted by Convair SD persons and approved will win sterling lapel pin. Pendant or cuff link set will go to submitters of ESs reaching $10,000 and CIPs hitting $25,000 in cumulative savings.

Lapel Pins, Cuff Links, Tie Clasps Adopted For ES, CIP 'Bonuses'

Veterans and beginners in Convair SD's Employee Suggestion and Cost Improvement Proposal programs will have equal opportunity to win jewelry prizes under a new "bonus" arrangement.

Sterling lapel pins are now being awarded each eligible suggestor at Convair SD for his or her first ES or CIP installed.

All ESs and CIPs submitted on or after Aug. 1 can qualify for lapel pins, according to D. L. Johnson, systems and procedures chief.

Cuff links and tie clasp sets or pendants are also being awarded under the new "bonus" program. They will go to submitters of ESs that attain cumulative savings at Convair SD of $10,000 or CIPs that total $25,000 in company savings. No time limit has been set and savings will be totaled from a period retroactive to Jan. 1, 1960.

Only one cuff link and tie clasp set or pendant will be awarded each person.

The jewelry prizes, which are in addition to all cash earnings, will replace color photograph sets and desk sets as "bonus" awards. Neither the President's Award nor the MacSave-it programs will be affected.

Electronics Expanding Manufacturing Space

Convair SD's greatly-expanded electronics manufacturing operation now is occupying the entire 50,000 square foot area in Bldg. 4 at Plant 1 originally earmarked for electronics production.

Remodeling of the east half of the building from Col. 1 to 23, begun just a year ago, is now complete, announced E. W. Carlson, chief of SD electronics manufacturing.

The area has been redecorated with white ceilings, beige and white walls, and improved lighting. All that remains to be finished are such jobs as painting of production machinery, aisle lines and identification markings.

New machinery has been purchased for fabrication to make a total of 32 mills, shapers, turret and engine lathes, metal cutting machines for a complete factory operation. Part of this equipment has been relocated from Depts. 31, 101, 115, and 403.

"This much space and equipment makes it possible for electronics manufacturing at Convair SD to keep pace with its present and future commitments," stressed Carlson. "Our increased capacity, backed up by other departments in SD operating division, gives us the capability of being able to deliver on schedule electronic equipment in support of our own aircraft program together with assists to SD's sister divisions as well as our commitments as prime and subcontractors to government agencies."

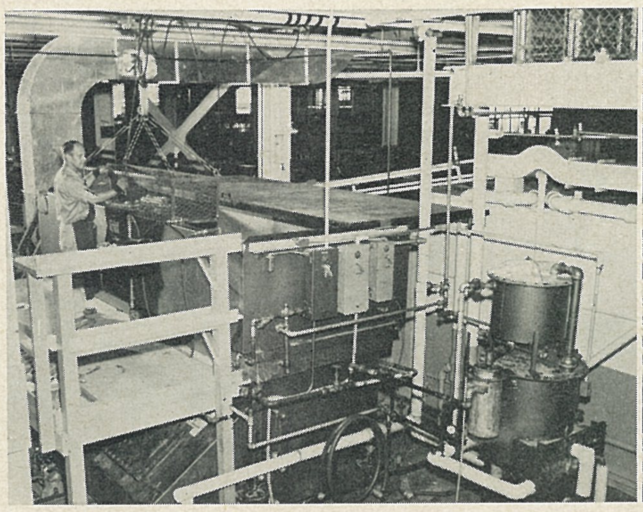
SD electronics manufacturing is now producing airborne radars for Autonetics Division of North American Aviation, Inc., and Con-

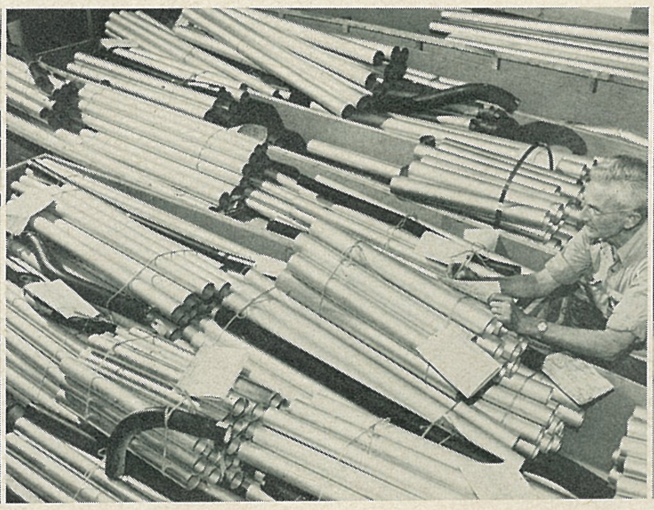
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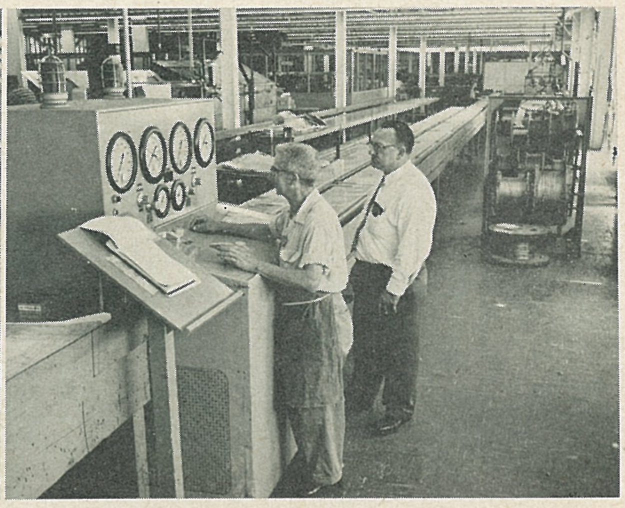
SD Employee Store To Close, Prices Cut

Closing of the Employee Store in the CRA Clubhouse on Pacific Hwy. will take place during the next month and all merchandise is being sold now at cost and 10 per cent below cost.

"A nice selection is still available in some lines," W. E. Rickman, store operator, said, "and prices are cut to the absolute minimum." The store is presently open between 10 a.m. and 4 p.m., Monday through Friday.







MAJOR MOVE—Shift of tubing and cable department at SD was big undertaking. At left, huge degreaser tank is back in operation (Clyde Simmons is operator) after being lowered from Bldg. 3 mezz. Center: Frank Lockwood, in charge of tubing and cable raw material, checks tubs of parts at new Bldg. 4 location. Right: Frank Crivello, proof load operator, and Danny Whorton, assistant foreman, check 96-ft.-long cable proof loader after reassembly.

Electronics Expanding Manufacturing Space

(Continued from Page 1)
vair Fort Worth; electronic components for landline instrumentation at Atlas bases as an assist to Astronautics; in addition to electronic parts for installation in Convair SD transports and interceptors. Final components for the data handling system built for the Air Force are going to Wright Air Development Division, Dayton, Ohio, this month.

The entire electronics manufacturing area includes fabrication section, central control area, and assembly and test area. First machinery for fabrication moved into the extreme south end of the building over a year ago, in June of 1959. Fabrication now has been expanded to occupy 15,375 square feet from Cols. 1-9 with 90 work stations under supervision of W. S. Childs.

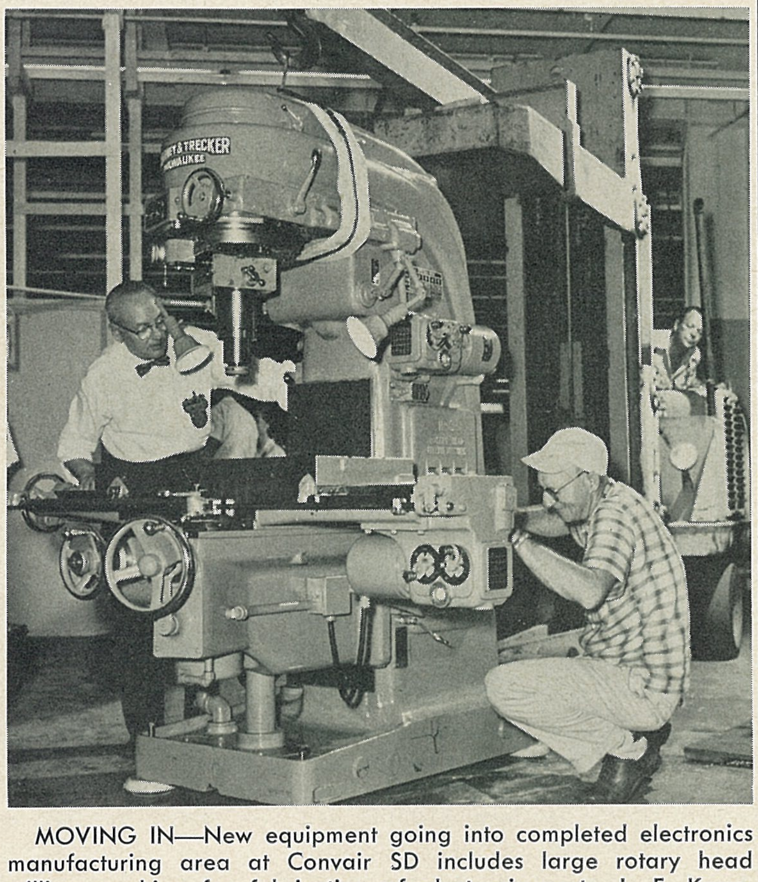
Control area, centrally located between fabrication and assembly sections, was completed within the last month. It occupies 8,700 square feet and includes such activities as manufacturing control, tool stores, blueprint files, inspection crib. As an added boost to facilitate flow of materials, an OSP (outside purchase) material section has been established in the area under Steve Smith, supervisor. It is manned by Dept. 24 (material stores) personnel.

Facing the center aisle in the same central location are administrative offices of C. F. Blair, superintendent of electronics manufacturing, and V. F. Cernuto, chief of manufacturing control.

First completed area, that of electronics assembly and test, was occupied in March of this year at the north end of the manufacturing section. It occupies 16,530 square feet of space and provides 275 work stations. B. L. Shaw is supervisor of all activities involving electronics assembly and processing.

Still to be relocated in Bldg. 4 is the potting facility from Bldg. 51 and electronics receiving inspection from Rose Canyon.

Directing rehabilitation of electronics manufacturing area and location of equipment and personnel are SD industrial engineers, G. H. Greim and R. H. Bacon, now assigned to electronics department projects. Plant engineering handled renovation.



MOVING IN—New equipment going into completed electronics manufacturing area at Convair SD includes large rotary head milling machine for fabrication of electronic parts. L. F. Kruse, assistant foreman (at left) watches D. E. Hoyt, Dept. 25 mechanic, guide machine into place as William Gillikin, Dept. 25 rigger, manipulates Yale lift.

★ Convairiety ★

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SD Editorial Offices, Building 32, Plant 1, ext. 1071. Staff: Grayce Fath, Helen Pemberton, Fred Bettinger.

Astronautics Editorial Offices, Bldg. 8, Astro site, ext. 3322. Staff: Bryan Weickersheimmer, news editor; Willard Harwood.

FW Editorial Offices, Col. 73C, ext. 2961. Mailing address: Convairiety, Convair, Fort Worth, Texas. Telephone PErshing 8-7311. Staff: Dave Lewis, news editor; Susan Tilley, Mary Beck.

Pomona Editorial Offices, Room 106-D, Bldg. 1, ext. 6226/5279, mail zone 3-3. Staff: James Combs Jr., news editor; Dorothy Keller.

Palmdale-Holloman Editorial Offices: Chuck Willey, CRA office, Room 36, Bldg. 301B, ext. 331, Palmdale facility. O. J. Ancel, industrial relations, ext. 20, Holloman AFB.

Quality Control Dept. Created For Electronics

A new department has been activated at Convair San Diego for quality control and inspection of SD electronic activities.

Effective July 18, quality control-electronics (Dept. 187) was established under supervision of H. L. Anderson as chief quality assurance-electronics.

Anderson, former chief of inspection at Palmdale facility, reports directly to G. A. Covington, SD manager of quality control.

He will be responsible for all electronics quality control and inspection for electronics manufacturing, engineering, and test activities. Reporting to him will be J. W. Barrett as electronics inspection supervisor and K. Sinclair, supervisor of quality assurance.

When fully staffed, the department will include 49 persons. New quarters for Dept. 187 is on second floor of Bldg. 4, south of present electronics office functions, including program coordinators, tool design, tool and operations planning and material control offices.

Anderson will be located in administrative office area of SD electronics on second floor of Bldg. 51, Room 254, ext. 2156.

A native of Kansas City, Mo., he has been involved in elecronics inspection since the B-36 and T-29 production era, transferring to Palmdale facility in 1956 in electronics inspection on Convair jet interceptors.

A Convair SD veteran, he joined the company in 1943 at Elizabeth City, N.C., division as flight radio operator and navigator, transferring to San Diego later the same year. Except for a lapse of a couple of years Anderson has been with SD operating division ever since, most of the time in inspection.

As a flight radio operator and navigator, he has made several Convair-Liner delivery trips to foreign countries, the latest to Japan with a 440 in July, 1959.

Designs of Nuclear Aircraft Revealed

(Continued from Page 1)
the wings, in addition to the nuclear power plant.

The other design employs indirect-cycle engines, a type being developed by Pratt & Whitney Aircraft.

Which kind of powerplant ultimately will be used for the first plane has not yet been determined.

Convair has been conducting nuclear aircraft studies for the past nine years and is the only company with experience in operating an airborne nuclear reactor. A converted B-36 bomber with reactor aboard was test flown for two years to study radiation effects on aircraft components and to determine the best methods of protecting crewmen from the effects of radiation.

Convair FW last year won the Air Force competition to design the nation's first nuclear-powered airplane.

Tubing and Cable Dept. Moved To New Location in SD Bldg. 4

In a major move within Convair San Diego's Plant 1, tubing and cable department (Dept. 117) has been shifted from Bldg. 3 mezzanine to the ground floor of Bldg. 4.

All machinery and equipment of the department which handles all tubing and cabling for Convair jet transports now is set up in 16,725 square feet of space between A-D columns 22-30 on west side of Bldg. 4. It had been on Bldg. 3 mezzanine for nine years.

Swinging the heavy machinery to the ground floor presented problems to transportation operations with the huge degreaser tank requiring an outside crane to lift it off the high balcony, said Dan Whorton, Dept. 117 assistant foreman. Besides the 26 machines, such as tube benders, saws, flaring and burring machines, pressure test and swaging machines, SD transportation had to manage the move of the 96-ft.-long cable proof loader. The long piece of equipment had to be broken into three sections to get into its new home.

In addition to the machinery, over 3,000 production patterns, eight large racks, and 30 tubs of parts were shifted into spots marked out on the 7-ft.-long industrial engineering blueprint. So far, everything has been found exactly where it was supposed to be, said Whorton, in praising transportation operations for efficient handling of the big shove.

Tubing cut and bent to specifications in Dept. 117 ranges in length from a few inches to 55 feet — measured to go through entire passenger area of Convair's jet transports. It takes 13 operations to bend tubing used for hydraulic, fuel, air speed, oxygen lines and cabin pressure ducts. For every 880 airliner, 1,500 tubes of various lengths and sizes are used. The 600 needs 1,700. So far, the 26 people in the department have completed tubing and cabling parts for 40 ship sets to go into 880s and five for the follow-on 600s. Both Dept. 117 and Dept. 116 (electric bench) now on Bldg. 4 north mezzanine are under supervision of R. V. Brunner, foreman.



EVALUATION—Col. H. C. Davall (at right) of FAA training division confers at Convair San Diego with P. H. Selby of production flight training on courses now being given on operation of Convair 880s and 600s.

Convair SD's Jet Training Program Looked Over by FAA's Col. Davall

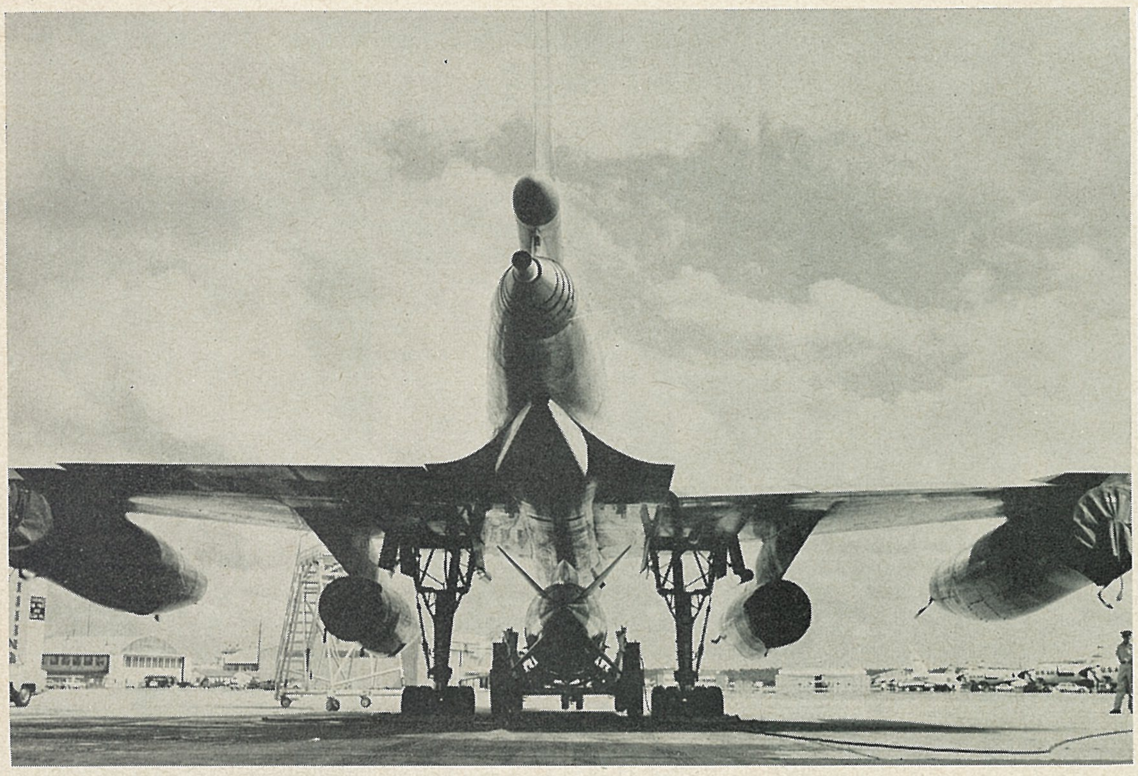
Jet transport training program at Convair SD was evaluated recently by a Federal Aviation Agency official for possible application to future FAA courses.

Col. H. C. Davall, chief of the FAA training division's plans and evaluation office at Washington, D. C., spent a day at Convair San Diego as last stop on a tour which took him to Boeing, Douglas, and Lockheed aircraft companies.

He explained that his advance examination of training courses offered by companies in the jet transport market was to determine possibilities of a FAA jet transport flight training program during the coming year. The FAA program would include pertinent parts of courses now offered by jet transport manufacturers and would be used for training of FAA air carrier flight operations inspectors. The FAA inspectors are responsible for check out and qualification of airline pilots.

While at San Diego Colonel Davall was given a run-down of salient features of both production flight and customer service training programs for Convair 880 and 600 jet airliners. P. H. Selby, production flight training supervisor, and Don Maxion, coordinator of customer service training, explained Convair's two-fold program. He took a set of training aids used in Convair's courses back to Washington, D. C., for further study.

A team of FAA technical experts are expected at Convair San Diego some time this month to work out details of the portion of FAA training dealing directly with Convair jet transports.



DRAMATIC—Photogenic B-58 is shown with pod riding in new positioning trailer. Responding to crew's commands, trailer raises pod into position for latching.

Convair SD Builds its Own Balances For Wind Tunnel Test Model Use

Specialists in a specialized field are the men at Convair San Diego who design, build, and instrument the balances which go into every model tested in SD's wind tunnels.

The balances, of size and shape to fit model and type of test, measure the loads acting on control surfaces of aircraft or missiles represented by the models. By the microscopic strain gauges within the balances (microfilm so tiny it can hardly be seen by the naked eye), amount of various forces is transmitted to consoles of the wind tunnel instrumentation group.

Of a design developed by Convair experts, balances start as solid pieces of stainless steel. Experimental model shop and machine shop shape them to design specifications. They are then calibrated to high accuracy; all are within two per cent and many within one-tenth of one per cent accuracy.

All basic balances register components of air dynamic loads — normal force, pitching moment, side force and yawing moment, rolling moment, and drag.

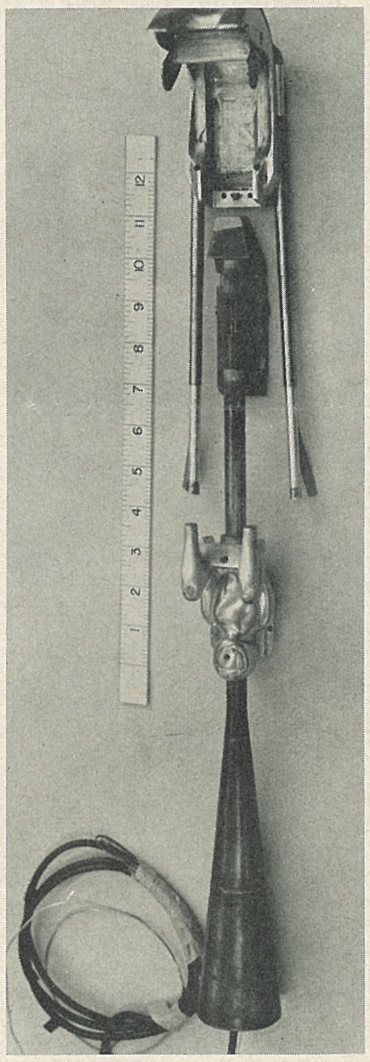
Many have been designed and used for special test programs — man-seat and ejection seat mechanism, flaps, spoilers, and horizontal tails for both interceptor and transport programs. Another special project was design of a remote-controlled aileron used on a one-tenth scale model of the 880. Measurements were taken during the sweep through different angles.

Now in the works is design of balances to go into models to be submerged in Convair's hydrodynamics towing basin. This is the first effort for use on underwater models.

P. J. Mole, senior design engineer, brought to Convair as a balance design specialist, and E. A. Collinge have designed and calibrated all strain-gauge balances for Convair SD low speed wind tunnel tests during the three years they have been built in the plant. Wiring is done under direction of Gene Droke of instrumentation group. All report to P. N. Bosch, supervisor of model design unit responsible for wind tunnel models.

"By designing and building our own balances," said Bosch, "we not only achieve more satisfactory test results, but are able to save many thousands of dollars. We can make our own at a third of the cost of sub-contracted balances."

The cooperative effort has been used to build balances for other Convair operating divisions as well as other aircraft industries.



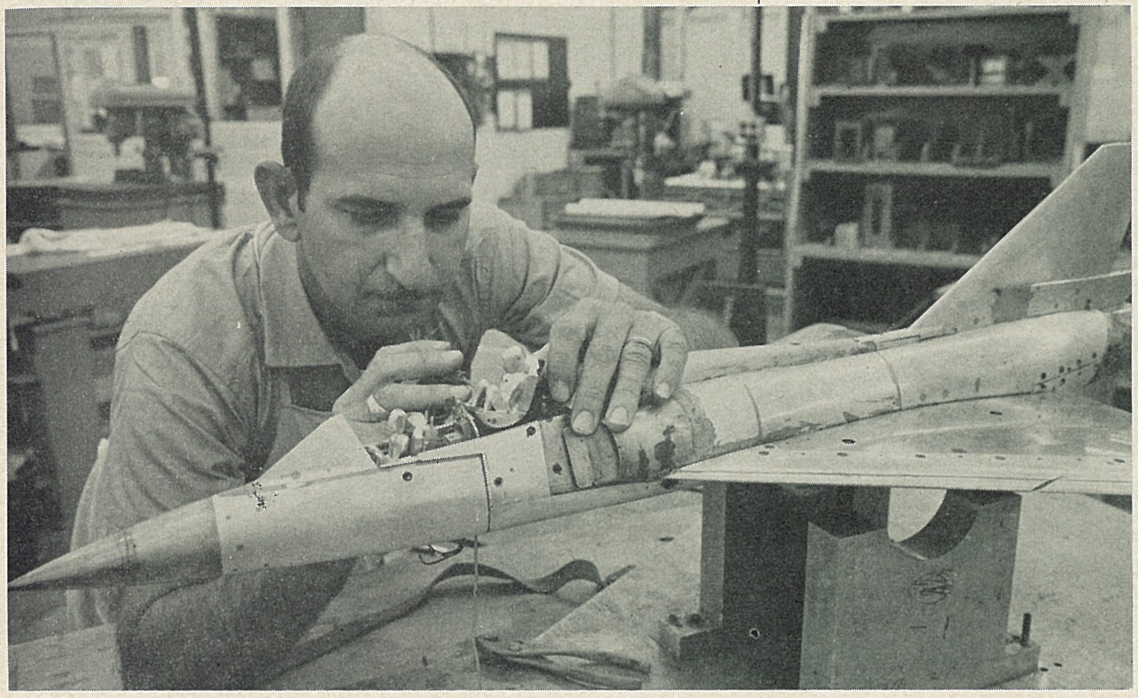
CLOSEUP — Shown is man-seat balance for F-106 wind tunnel model.

Seven More Qualify For 'Pro' Standing With State Exams

Seven Convair men, five from Astronautics, two from Convair San Diego, have passed a written examination for registration as professional engineers in California.

Four passed the mechanical engineering exam. They are Robert V. Jaeb (Dept. 6-02 SD), Carl G. Johnson (Dept. 595-1 Astro), Henry T. Iida (Dept. 595-1 Astro) and Richard N. Franklin (Dept. 565-4 Astro).

Frederick L. Heid (Dept. 547-2 Astro) and Donald N. Mareen (Dept. 6-03 SD) passed electrical engineering exams, while Norman P. Langley (Dept. 604 Astro) passed the civil engineering test.



BALANCED — P. W. Greenhaw, Convair SD model builder, puts finishing touches on man-seat balance, one of many delicate instruments designed and built at Convair SD for use in wind tunnel tests.

Novel Trailer Designed To Place Pod in Position For Attaching to B-58

A versatile positioning trailer and a control box no bigger than a basketball are used to load pods on B-58 Hustlers.

These and other unique equipment, specially designed to criteria set by Convair FW engineers, are now being used on limited scale at Carswell AFB.

The B-58's "super blockbuster" pod requires special handling, for it is 57 feet long and 5 feet in diameter. Empty it weighs approximately 2,500 pounds — well under the 15,000-pound capability of the trailer.

Perfection of a new positioning trailer enables crewmen to move the pod from storage to plane, virtually untouched by human hands.

In "storage" the pod is housed on a work stand with uniform width rails. A mobile transport trailer, also equipped with rails, "ties into" the work stand, and the pod is rolled onto the trailer.

The transport trailer is used to tow the pod long distances—particularly in the field. From transport trailer, the pod is shifted to the positioning trailer — again by rail — and this five-foot tall workhorse executes the delicate job of placing the pod precisely in place under the slender B-58 fuselage.

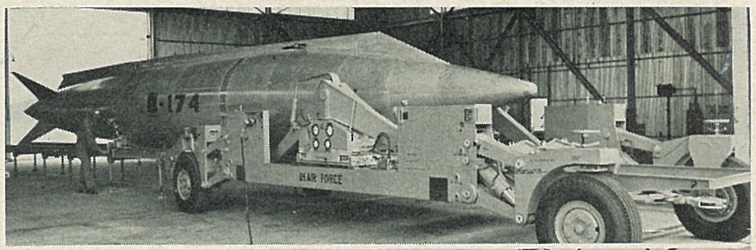
Equipped with uniform rails so that a pod can be transferred from either work stand or transport trailer, the positioning trailer has an electrically driven hydraulic system for raising the pod.

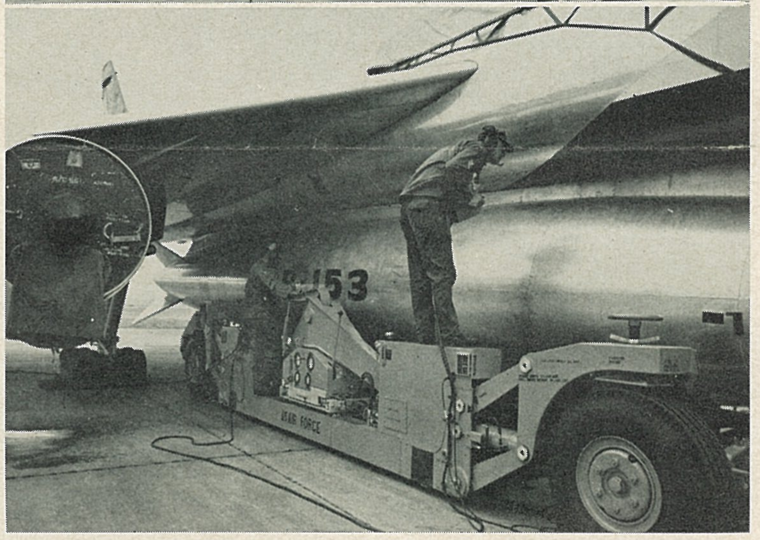
A four-man crew is used to "guide" the trailer, which has four-wheel steering.

Three strategically located crewmen equipped with intercoms serve as guides for the crew chief who "steers" the pod into position with his control console.

Actually, this little cubic foot control box, strapped around the crew chief's neck, does most of the "work." A control stick on the console enables the crew chief to move the pod in six ways — up and down, forward, lateral, pitch, yaw, and roll, J. K. Jopling, senior design engineer, who has monitored development of pod handling equipment, explained.

Convair and Carswell AFB personnel conducted an engineering evaluation test of the new equipment recently and Bob Cole, assistant project engineer, reported the Air Force review was quite favorable, with only minor changes suggested.





ADJUSTABLE — In lower photo, crew chief at right operates "hand organ" control box by which he can raise B-58 pod at will. He is in communication with other crewmen, stationed at strategic points.

Hall of Fame Suggestion Display Placed in FW Aisle Showcase

A "Suggester's Hall of Fame" is being put on display in a factory aisle showcase at FW.

Photographs and cumulative suggestion records of 15 Convair employees will comprise the layout, scheduled to be on display for two weeks.

Convair FW's five President's Award winners are included in the Cost Improvement Proposal group. Winners and accumulated installed savings are: L. R. Parvin, Dept. 7, $242,533; W. E. Mitchell, Dept. 35, $66,912; A. F. Drysdale, Dept. 23, $175,930; T. F. Paniszczyn, Dept. 6, $64,360; C. W. Doyle, Dept. 22, $117,026.

Also included in the display are 10 outstanding Employee Suggestion contributors and their cumulative installed savings. They are: W. E. Doom, Dept. 4, $15,415; L. D. Howton, Dept. 64, $15,787; W. A. Hokett, Dept. 74, $48,450; F. M. Mason, Dept. 27, $21,233;

B. M. Crawford, Dept. 27, $25,829; D. L. Campbell, Dept. 75, $27,567; J. R. Moran, Dept. 6, $28,027; J. D. Keel, Dept. 21, $32,688; Joe Rozina, Dept. 30, $32,792; and D. C. Hill, Dept. 22, $29,675.

The display will be entered later this year at the National Association of Suggestions Systems convention in Philadelphia, according to M. J. Scott of suggestions.

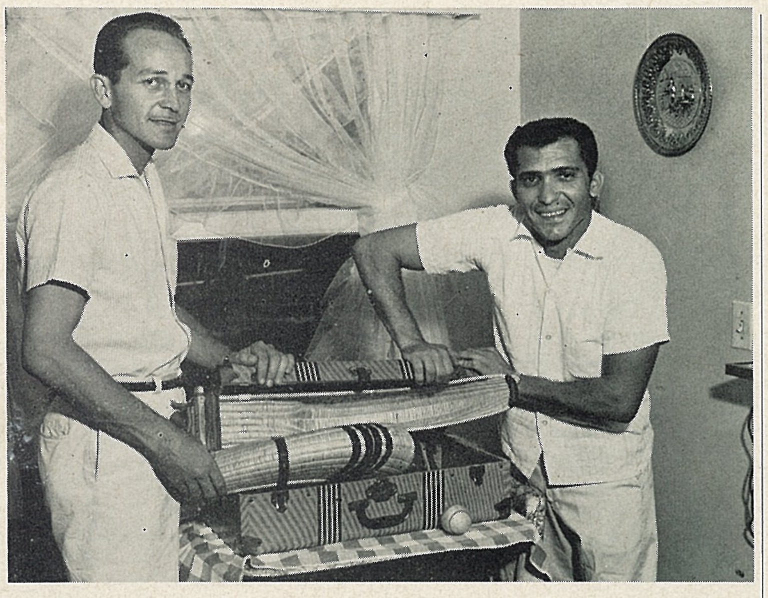
"Convair FW won the best-display award at last year's gathering in St. Louis," Scott added.

Writer Given Mach 2 Ride

N. R. Erman last month was the first Convair SD service publications writer to make a supersonic flight in an F-106 from Palmdale, Calif.

Three more SD writers, all associated with compilation of F-106 flight manuals, will be making Mach 2 flights in F-106Bs within the next few weeks. They are C. M. Keys, J. D. Meacham, and T. S. Cope, all of Dept. 15-6. The flights are planned to give them a first-hand feel of the plane and acquaint them with its operating systems as background for their writing task.

Erman, former Navy pilot during Korean war years, said his Mach 2 flight was effortless compared to breaking the sound barrier in earlier jets. Then they had to dive at full power to attain Mach 1 speeds.



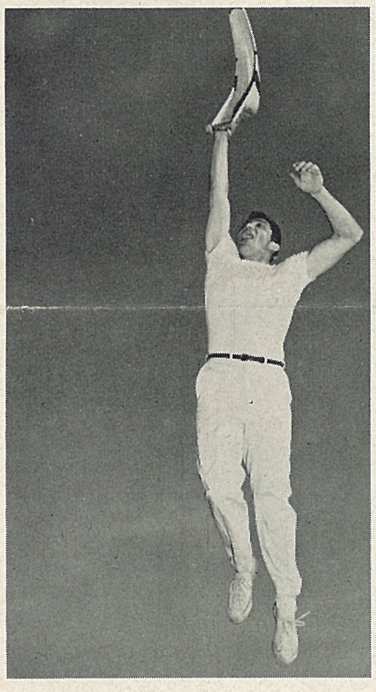
HIGH HOPES—Ron Bales (SD Dept. 400), left, and John Gilardo (SD Dept. 180) try to cram cestas in suitcase in anticipation of receiving backing to play in Amateur Jai Alai Championships late this month in Acapulco. If they make it, they'd be first players from U.S. ever entered.

Acapulco Bound?

After Two Years of Practice, Jai Alai Players Eye Tourney

With luck, two Convair SD men will be the first representatives of the United States ever to compete in the Amateur Jai Alai Championships late this month in Acapulco, Mexico.

John A. Gilardo (Dept. 180) and Ron Bales (Dept. 400) are something of a rarity in the U.S. — jai alai enthusiasts who play the game, not bet on it.



FINE FORM — John Gilardo (SD Dept. 180) flashes jai alai form, result of more than two years practice in Tijuana Fronton. Photos were snapped by Convair SD photographer O. W. Rollins.

And both feel they've had plenty of seasoning. For more than two years they have been practicing Saturdays and Sundays in the Tijuana Fronton.

"We've had the opportunity to practice with some of the finest players in Tijuana and are sure that we could make a respectable showing in Acapulco," Gilardo states.

Presently, the only thing holding up the jaunt for the two 26-year-old Convair men is sponsorship, which they are in hopes of getting.

"If our quest for a sponsor is successful we will be the first American team to enter the amateur championship," Bales adds.

When the pair first decided to take up jai alai they obtained permission to use the Tijuana Fronton.

"Our hours for practice were not especially desirable at that time," Gilardo recalled. "It was often still dark during the early morning hours allotted us. It almost got to the point where we depended more on hearing the pelota than seeing it."

Both find the international sport a real challenge.

"The pros make the game look deceptively easy, but believe me, it's not. In fact, many beginners cannot even get the pelota out of the cesta, much less hurl it the length of the court," Gilardo said.

Hardest technique to acquire is to catch the pelota and return it in the same motion. Gilardo spent more than two weeks before he could execute the fundamental movement.

Each shot is a challenge, according to Gilardo. "The ball seems to do a different thing each time, spin, loop, twist; its speed changes constantly and some of the balls react differently than others."

Both men are in the peak of condition, a result of their continuing practice during the past two years.

"We've been forced to practice long stretches at one time, and our greater stamina and endurance would be a vital asset if we make it to Acapulco," both claim.

Corrosion Is Subject Of Technical Paper

E. I. Weed, process engineer, Dept. 6, at Convair Pomona, presented a technical paper on corrosion at the July 25 session of the 47th Annual Convention of American Electroplaters Society at the Statler Hotel, Los Angeles.

Weed has been employed at Convair since 1951 in the field of corrosion protection, sealants and structural adhesive bonding. He is a graduate of Chaffey College and is presently teaching evening school at Chaffey College in the industrial supervision program.

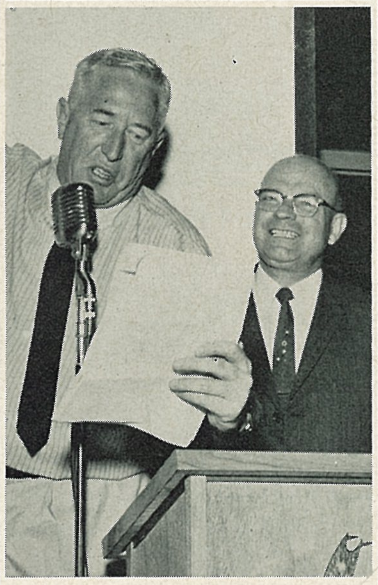
J. D. Tate Appointed Chief of Inspection

J. D. Tate has succeeded H. L. Anderson as chief of inspection at Convair Palmdale facility.

Anderson, who had been in inspection at Palmdale since 1956, has transferred to Convair San Diego as chief of quality assurance-electronics in the new Dept. 187.

Tate joined Convair SD in 1940. He was on military leave in 1942-43, serving with the U.S. Army. Before coming to Palmdale as general supervisor of inspection he was an inspection supervisor at San Diego.

He is current treasurer of Convair Antelope Valley Management Club.



FINE FELLOW—C. W. Greaves (right), SD manager community and public relations, received Mug of Month and good-natured ribbing at Management Club meeting last month. D. C. Wilkens, industrial relations manager, made presentation.

Baby Skunk Causes Commotion When He Wanders Into FW Plant

It wasn't any lamb that followed several Dept. 33 employees to work recently at Convair FW!

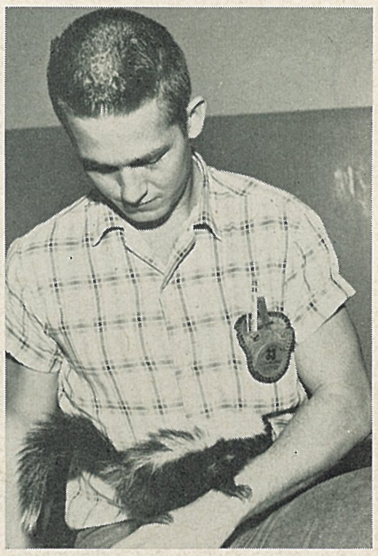
It was a skunk — too young to produce an odor, but capable of producing plenty of excitement.

G. W. Christian, Dept. 33, first saw the youngster, which apparently wandered in from nearby fields, as it trailed a group of girls down "C" Aisle one morning. The immediate result when the ladies saw the skunk was mass confusion. But Christian solved all when he picked the animal up, dubbed him "Pierre," and announced he would take him home.

After a $15 deodorizing, Christian plans to keep the skunk as a household pet.

A co-worker, C. K. Thomas, assistant foreman in Dept. 33, happens to be an ex-skunk raiser. From him Christian learned that deodorized skunks make most affectionate pets. They cannot produce odors until they are six or seven months old, and their favorite meal is any kind of dog food.

"In fact, they are so easy to take care of and so much fun to keep as pets," Thomas said, "that I always used to get at least one new skunk a year for my children."



"PIERRE" — G. W. Christian, FW, pets baby skunk he named "Pierre" after adoption. Youngster followed Dept. 33 girls to work, unbeknownst to them.

Tame Jay Knows a Good Thing; Relies on Friend to Feed Family

When Convair Pomona's John Philippon (Dept. 25) gave a handout to a California jay several months ago he made a permanent addition to his household.

"Moocher," as Philippon appropriately named the bird, has not missed a day of feeding since the first visit, and has recently introduced the mother bird and their fledgling to the source of supply.

Knowing a good thing when he finds it, Moocher guards his domain with the eye of an eagle, and quickly drives away all other birds who show up on the scene. Although the jay is friendly with most people, he cautiously waits for Philippon's command before he flies down to meet a new acquaintance.

He is much like a human in one respect, according to Philippon. When given a choice of foods, he almost always selects the delicacies. He prefers walnut meats to the usual offering of bread or bananas.

"Humans might well take a lesson from Moocher, however, when it comes to providing for a rainy day," Philippon added. "With an eye out for the future, the bird will shrewdly hide extra morsels between blades of grass and hide the spot with a leaf. Hidden provisions can also be found under shingles on the roof and other well chosen spots in the yard. One thing's for sure — he and his family won't go hungry."



BIRD IN HAND—Since early spring "Moocher," California jay, has been member of John Philippon family, especially at mealtime. Getting acquainted with feeding ritual is Philippon's son, Loren.

Close Squeek

Fifth—and Last—Try in Soap Box Brings Sweet Success to SD Son

It took exactly 27.19 seconds for a lanky 15-year-old Convair SD son to win the championship heat of the 1960 San Diego Soap Box Derby last month.

But shortly before race time it appeared that more than five years of planning, effort and determination would be wasted for Richard Brown (son of R. H. Brown, Dept. 160). Richard and his racer weighed nearly two pounds over the 350-pound maximum and faced disqualification!

Richard solved half the problem by yanking a one-pound ironwood weight block off the racer. Then he started to run around the derby track. Half an hour later when the breathless youth and his racer were weighed again Richard had managed to work off a pound of his own weight.

The championship was doubly sweet for the six-foot, five-inch Convair son who was making a last stab for a Soap Box victory after four previous tries.

In addition to the championship award Richard received another for the racer with the most original construction, and according to his dad, that's exactly what it was: "original."

Except for a new top and some modifications the racer was the same one Richard drove in 1959 when he placed fifth. Some of the modifications were required because he had sprouted more than three inches in the last year!

Line work on the racer was started in August of 1958. The young designer talked to previous derby champions, thoroughly investigated all methods before starting construction.

When work started Convair SD's salvage yard was an important source of material, providing fiber glass, metal clips, angles.

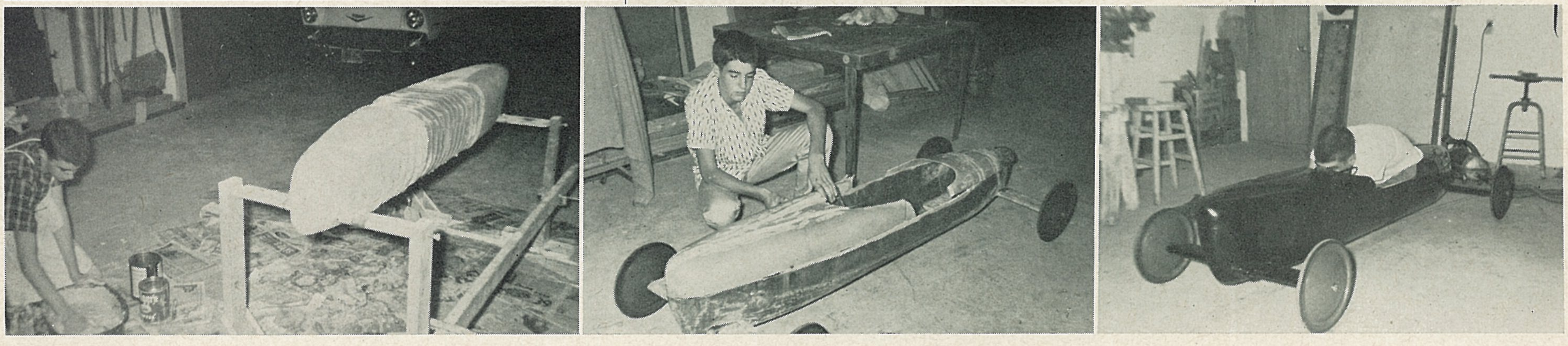
Many weeks were spent building up the plaster mold, more time passed before the fiber glass body was pulled. Richard then used up plenty of elbow grease applying five coats of resin and 12 to 13 coats of lacquer.

"My only part in the task was acting as more or less a safety supervisor," Brown senior stated. "I helped with some of the cleaning up chores, but that was the extent of my participation."

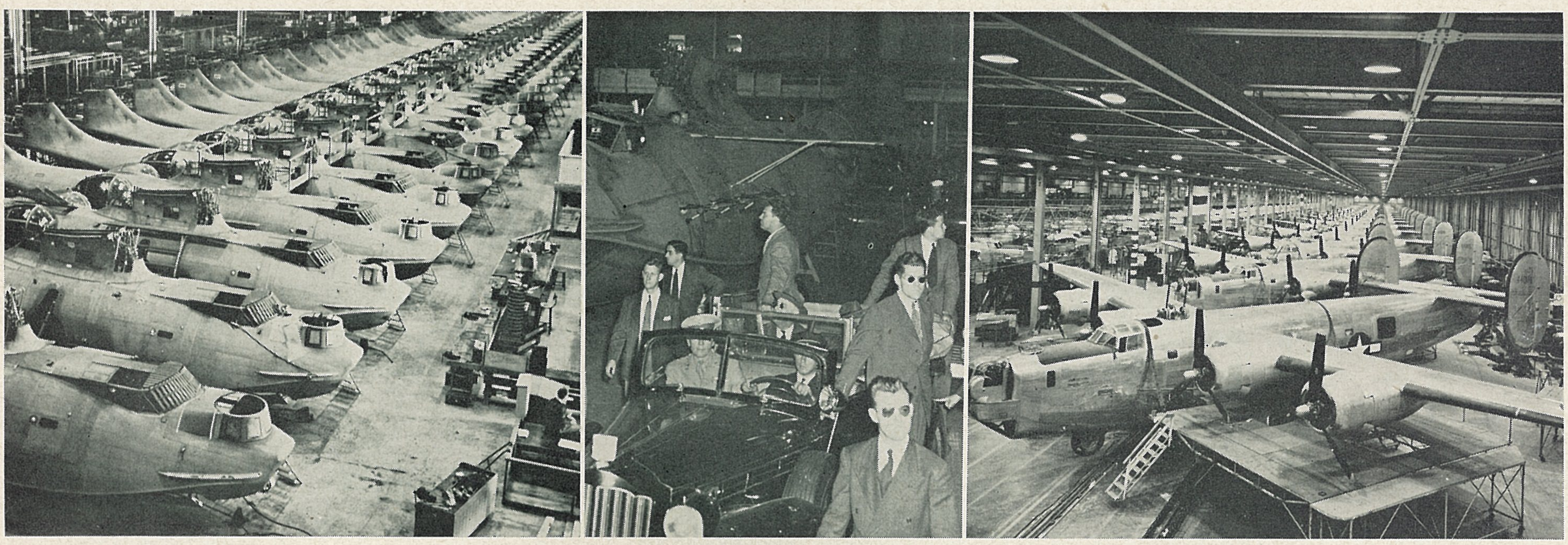
This month Richard will compete with champions from other parts of the country at the national Soap Box Derby at Akron, Ohio.

But even after that the Soap Box fever will still run high in the Brown family.

Still to take their turn behind the wheel of a soap box are Clifford, 10, and Scott, 9.



STEPS TO SUCCESS—Richard Brown (son of Convair SD's R. H. Brown, Dept. 160) spent many months perfecting racer he rode to victory in San Diego Soap Box Derby last month. Construction cycle is well along in left photo with plaster form almost completed. Floorboard and axle trees are already incorporated. In center photo fiber glass body has been pulled. Paraffin was used for parting compound. At right is sleek shell completed, after five coats of black resin and more than a dozen doses of lacquer. He first started construction of racer two years ago; drove it to fifth place last year; modified it for 1960 event.



WAR DAYS—Above are PBY and B-24 assembly lines at San Diego during wartime when Consolidated was making heroic efforts to supply Air Corps and Allies. | In center, President Roosevelt and party drives through building as two employees peek from fuselage of PBY.

NEWS FROM OTHER DYNAMICS DIVISIONS

General Dynamics Corporation, created in April, 1952, as successor to Electric Boat Company, is composed of seven divisions and a Canadian subsidiary, Canadair Limited, of Montreal, airframe builders. The divisions are:

Convair, head offices at San Diego, Calif., aircraft, missiles, and space systems.

Electric Boat of Groton, Conn., submarines.

Stromberg-Carlson, of Rochester, N. Y., telecommunications, electronic equipment.

Liquid Carbonic of Chicago, Ill., carbon dioxide producer, industrial and medical gases.

General Atomic of San Diego, Calif., nuclear research, development, production.

Electro Dynamic of Bayonne, N. J., electric motors, generators.

Material Service Division, Chicago, Ill., building materials, concrete products and coal.

* * *

Last of CL-28 Anti-Sub Planes Delivered to RAF by Canadair

MONTREAL—A phase of Canadian and NATO defense neared completion this month when the last of 33 CL-28 "Argus" anti-submarine airplanes emerged on schedule from the final assembly-line at the plants of Canadair Limited here.

Like its 32 predecessors which have been rolling out of Canadair since 1956, it will join the Maritime Air Command of the Royal Canadian Air Force to protect Canada and her NATO allies from seaborne attack against shipping and from submarine-launched missile bombardment of coasts and inland cities.

The CL-28s, christened "Argus" by the RCAF for the 100-eyed monster of mythology, has frequently been credited by international authorities with being the world's finest weapon system to guard against undersea attack. Capable of extremely long range, it was designed to carry out reconnaissance over vast areas of ocean and to detect, locate and destroy enemy submarines.

NUCLEAR SUBMARINE NO. 12 COMMISSIONED

GROTON—Rear Adm. Lawson P. Ramage, director of anti-submarine warfare division, Office of Chief of Naval Operations, was principal speaker at commissioning July 29 of the nuclear-powered attack submarine Scorpion. She is the first sister-ship of the USS Skipjack, fastest sub in the Fleet.

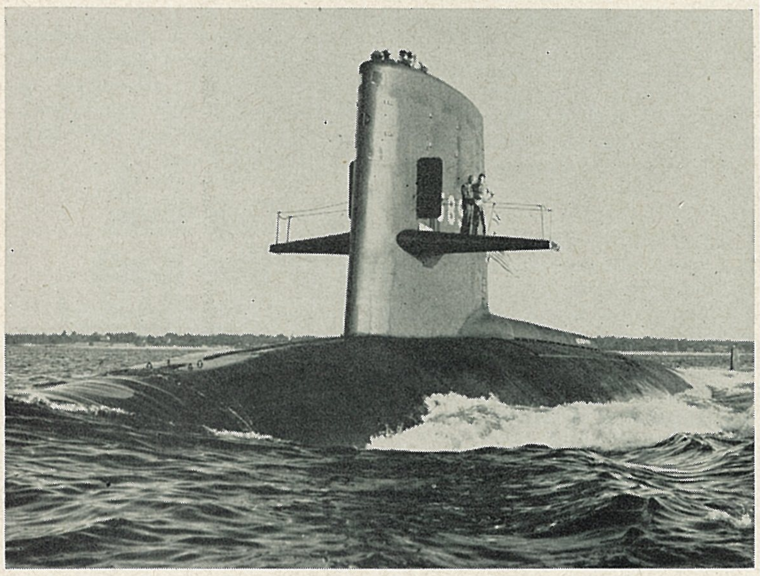
The Scorpion was commissioned at 10 a.m. at her builder's dock at Electric Boat Division. Featuring the same cigar-shaped hull as Skipjack, Scorpion is the Navy's 12th commissioned nuclear-powered submarine, eight of them products of Dynamics' Groton shipyard.

Stromberg-Carlson Gets AF Business

ROME, N. Y.—The directorate of procurement and production at Rome Air Materiel Area, has awarded Air Force contracts totaling $956,425 to Stromberg-Carlson.

One contract, for $895,425, is for a 3,000-line telephone system at Eglin AFB, Fla., and a 5,000-line telephone system at Andrews AFB, Md.

The other contract is for $61,000 and is for a 600-line addition to an existing telephone system at Cape Canaveral.



NEWEST—Nuclear-powered Scorpion, shown on maiden voyage, with Vice Adm. H. G. Rickover on sailplanes with Cdr. J. F. Calvert, was commissioned last month at Groton.

War Giant

Consolidated SD Home Plant Top Producer

(Following is installment No. 40 in Convairiety's continuing history of Convair. Its author, Howard Welty, now of General Office Dept. 1-41, calls period covered by next several issues "The Wartime Giant.")

When the attack on Pearl Harbor drew the country fully into the war in December, 1941, the airframe industry was far advanced on its first phase of expansion, enlargement of plants already in existence. Consolidated's payroll, only 6,000 when President Roosevelt called for production of 50,000 planes a year in May, 1940, had passed the 30,000 mark. Vultee Field's work force had grown from 2,500 to 6,000. The year 1942 brought the expanded plants into full production and saw completion of such new facilities as Consolidated at Fort Worth and Ford at Willow Run.

As production tempo mounted, problems in manpower, materials and general congestion multiplied. For the overgrown Southern California aircraft industry, additional expansion had to be achieved elsewhere—by establishing a modification center in Arizona, or converting an empty Pennsylvania truck factory into an airplane manufacturing plant. After formal merger of Consolidated and Vultee in March, 1943, Convair comprised a structure of 13 manufacturing, modification, research and operating divisions in 10 states. Combined payroll reached a peak of 101,637 late in 1943.

Among all Convair plants, the big home factory at San Diego was the heaviest producer. In the period from Jan. 1, 1941, through Sept. 30, 1945, San Diego delivered 235 million lbs. of aircraft and spare parts. This amounted to 8.2 per cent by weight of the entire output of some 70 U. S. and Canadian plants that manufactured aircraft for the Air Force, Navy and Allied governments during World War II.

By the summer of 1942, Chairman Tom Girdler had pushed San Diego's potential well beyond the government's ability to supply parts and materials, Fortune magazine reported in September. "This has been the result of introducing a straight-line production system, of pushing more and more final assembly back into subassemblies, of patient worker education, of introducing incentive bonuses, and of delegating authority," the magazine stated.

Peak output was reached in January, 1944. During that month assembly lines delivered 253 Liberator bombers, 74 Catalina flying boats, and the first production model of the four-engine Coronado flying boat.

In 1940 subcontracting accounted for only 10 to 20 per cent of the airframe industry's output, but manpower and space shortages brought broad changes, starting in 1942. By 1943, Convair San Diego was building B-24s with parts received from nearly 100 subcontractors, fabricating such normally factory-made items as horizontal and vertical stabilizers and bomb bay doors. At Convair Fort Worth, it was estimated 40 per cent of fabrication on bombers and transports was performed by subcontractors who shipped millions of pounds of parts to the plant monthly.

Feeder shops, another means of "taking the work to the laborer" came into widespread use. The system was inaugurated at Convair SD in December, 1942. By early 1944 the plant had a network of 11 feeder shops in California cities up to 130 miles distant from San Diego, employing 1,700 of whom 90 per cent were women.

Headquarters for the system was in Santa Ana where three shops were situated. Raw materials were distributed from there and finished parts collected for delivery to San Diego. Typical feeder shop products included bulkheads, electrical harnesses, sheet metal subassemblies, plexiglass moldings, and most of the upholstery going into B-24s. At Coronado, Calif., across the bay from San Diego, one shop specialized in sorting rivets swept up from plant floors.

Employment at San Diego remained close to 45,000 from the summer of 1942 through April, 1943. It dropped slowly to 35,000 over the next two years, then beginning in May, 1945, shriveled away until only 3,760 remained on the payroll at the end of the year.



FEEDERS — Space limitations forced Consolidated to set up "feeder shops" that fed parts to main plant. In top photo women at Coronado, Calif., sort rivets, while below is shop set up in former garage at Laguna Beach, Calif., for electric harness production.

Order For Two Subs Placed

GROTON—Award of contracts for two ballistic missile submarines to General Dynamics Corporation last month marks the third generation of missile submarines to be designed and built by Electric Boat Division.

Both submarines are designated as the SSB(N)616 class.

The contracts bring to six the total missile submarines awarded to Electric Boat since the Polaris submarine construction program began in late 1957.

The first missile subs, USS George Washington and USS Patrick Henry, were both delivered to the Navy less than two years after construction was begun.



Car Clubbers Meet Tonight

Final details for "Field Day '60" will be firmed by Convair SD Sports Car Club members at a 7:30 p.m. meeting tonight (Aug. 3) in the Balboa Park Natural History Museum.

The meeting will be open to visitors and guests and a sound-and-color movie of the 1957 Mille Miglia will be screened.

Upwards of 50 Sports Car Club members will be handling the many "Field Day" working assignments. As host club, they will not compete during the event scheduled Sunday (Aug. 14).

The CRA-sponsored meet is being run as a championship event of the San Diego Council of Sports Car Clubs. A near-record sports car entry field is expected.

Featured events will include acceleration and braking tests, time trials, gymkhana and slalom. A technical inspection at 8 a.m. will get the "Field Day" under way.

PECAN PARK MEETING

Next meeting of the Convair SD Fishing Club is scheduled Tuesday (Aug. 16) at 6 p.m. at CRA's Pecan Park. A potluck dinner and charcoal steak fry is planned.

Log Book Entries

Promotions

SAN DIEGO

Promotions to or within supervision effective July 18.

Dept. 3-1, Industrial Relations: To security and investigations supervisor, S. R. Sharp.

Dept. 6-04, Engineering: To structural group engineer, J. E. Burgeson.

Dept. 7, Electronics: To asst. test group engineer, W. A. Dershem. To asst. foreman, L. J. Moran.

Dept. 34, Material Procurement: To general purchasing agent, E. F. Monsees. To buying supervisor, G. B. Byers.

Dept. 140, Pod & Pylon Assembly: To asst. foreman, M. M. McCaskey.

Dept. 160, Jet Transport Final Assembly: To asst foreman, B. H. Bingham, J. H. Bradshaw, R. S. Bryan, R. Buss, M. R. Davis, C. H. Gerdes, J. D. Hartman, W. J. Sherman, W. E. Smith Jr., P. L. Sobeck.

Dept. 171, Field Operations: To asst. foreman, L. H. Wilson.

Dept. 187-0, Quality Control-Electronics: To chief of quality assurance-electronics, H. L. Anderson.

Retirements

SAN DIEGO

ANTONELLO—Charles F., Dept. 201. Seniority date April 9, 1953, retirement effective July 22, 1960.

BRADLEY—Guy R., Dept. 14. Seniority date Aug. 13, 1951, retirement effective April 15, 1960.

COBB—Fred D., Dept. 401-7. Seniority date Feb. 28, 1952, retirement effective July 15, 1960.

GILCHRIST—Charles D., Dept. 31, Seniority date Nov. 20, 1952, retirement effective May 20, 1960.

HOFMANN—Fanny P., Dept. 401-7. Seniority date Feb. 12, 1952, retirement effective July 15, 1960.

MONROE—John W., Dept. 120. Seniority date March 28, 1947, retirement effective July 15, 1960.

O'LEARY—Cornelius J., Dept. 292-5. Seniority date March 16, 1951, retirement effective July 22, 1960.

STUTZ—Adam M., Dept. 401-4. Seniority date July 25, 1955, retirement effective March 19, 1960.

Personals

SAN DIEGO

I shall always be grateful to my Convair friends for their generosity, messages of sympathy, and beautiful flowers at the time I lost my daughter, Terry.

Mary Trotter, Dept. 93-2.

* * *

We acknowledge with sincere thanks the many kind and thoughtful expressions of sympathy shown the family of Joseph Scott.

Mrs. Hester Scott.

* * *

The kindness and sympathy displayed by friends of Robert C. Morgan is more deeply appreciated than any word of thanks can ever express.

Laura, Marilyn and Stephen Morgan.

* * *

We are grateful for the many courtesies extended us by Convair friends at San Diego, Palmdale and Astronautics, during the long illness of our late husband and father, Paul E. Vandeford. The floral tributes were beautiful.

Mrs. Paul E. Vandeford and children.

Births

SAN DIEGO

CHENELLE—Son, Karton W., 8 lbs., 11½ oz., born July 17 to Mr. and Mrs. Frank W. Chenelle, Dept. 401.

LORD—Son, Michael Robert, 7 lbs., 13 oz., born July 17 to Mr. and Mrs. Wallace F. Lord, Dept. 232.

MacDONALD—Son, Robert G., born June 28 to Mr. and Mrs. Richard MacDonald, Dept. 31.

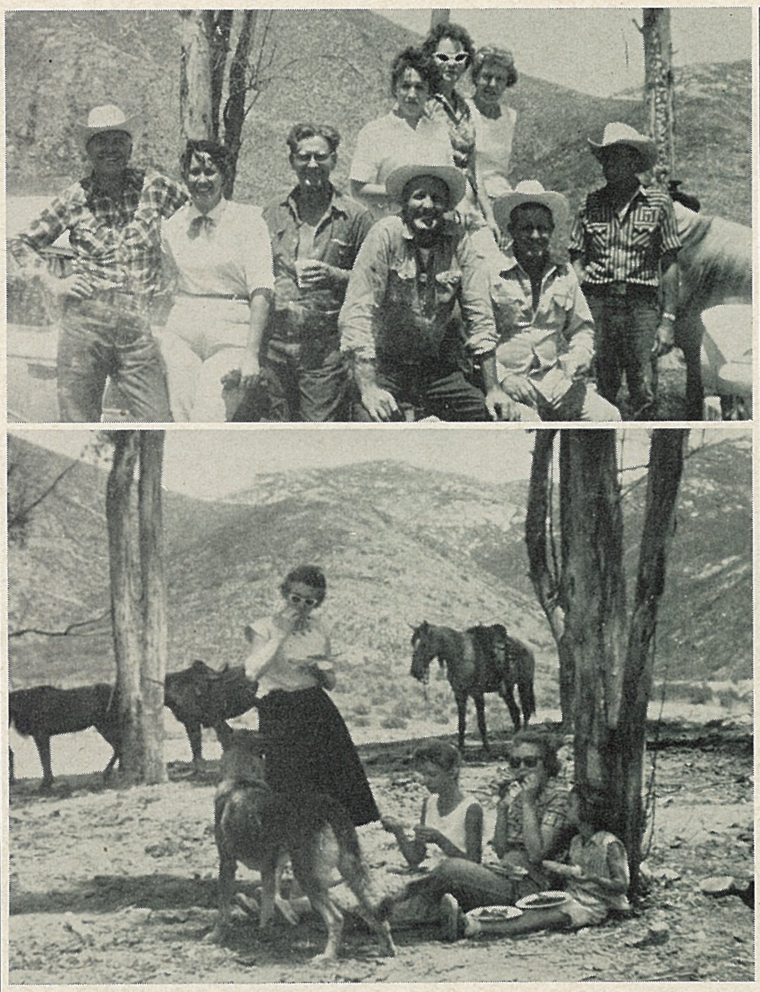
PAYNE—Son, James A. II, 5 lbs., 13 oz., born July 13 to Mr. and Mrs. J. A. Payne, Dept. 400.

Deaths

SAN DIEGO

LIUAG—Luis L., Dept. 146. Died July 20. Survived by wife, Emilia (Dept. 216); two sons, Armando and Louis; three grandchildren.

SCOTT—Joseph, Dept. 3-1. Died July 13. Survived by wife, Hester; daughter, Patricia Zock; son, John Scott; one granddaughter.



WESTERN STYLE—More than 40 Convair SD Riding Club members attended season's first trail ride, in Poway Valley, July 24. Temperature climbed during outing but shade trees were taken advantage of during dinner.

Manual Will Give Procedures For Loading New F-102 Missile

A group of Convair San Diego service engineering writers are busy working out step-by-step loading procedures of a new missile destined to augment jet interceptor weapon systems.

C. M. Keys, senior service engineer, J. D. Meacham, publications editor, M. J. Ferris, engineering writer, and E. J. Tyndale, engineering illustrator, are charged with the task of preparing a loading procedures manual for the new GAR-11 under an Air Force contract. The air-to-air guided missile is being developed and built by Hughes Aircraft Co.

To gain actual experience in best sequence for handling the missile, the four, together with Ernie Flisrand, SD photographer, spent several days recently at Holloman AFB, N. M. There they took tape recordings and over 100 close-up photographs of an AF armament loading crew installing and unloading the missile on a modified F-102.

Handling of every nut and bolt during the process was faithfully recorded with time marked in increments of 15 seconds. From the recordings, the service publications group is now lining up the procedure for greatest efficiency. They will compile a graphic explanation, illustrated with pictures of each step—who does what, when, and where—to go to AF squadrons which will be handling the missile in the future.

The F-102 is slated to be the first interceptor to carry the new weapon.

Basic loading procedures had been worked out previously in a joint review of Convair and AF Special Weapons Center experts at San Diego. The job-oriented loading procedures manual is scheduled for publication in September, said H. R. Kennedy, chief of service publications.

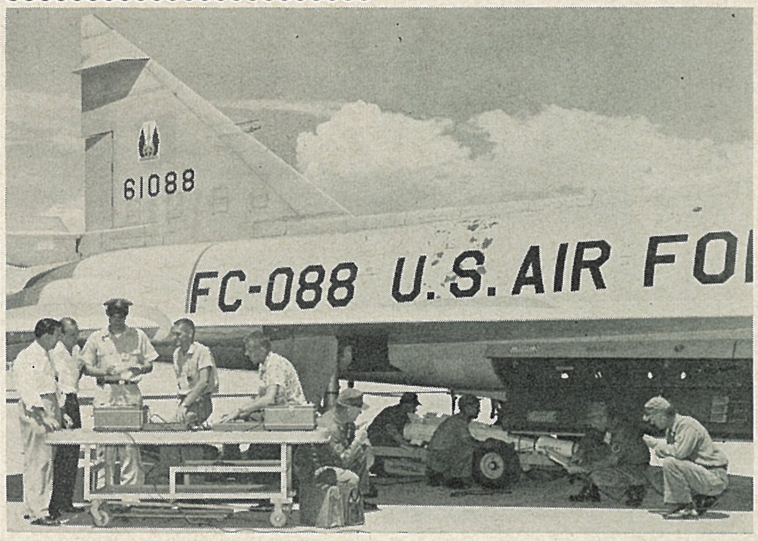
SD Archery Teams Now Being Formed

Archery enthusiasts at Convair SD interested in team shooting, both for competition and exhibition, are asked to contact Al Phipps of the CRA Archery Club as soon as possible.

Formation of one or more teams, depending on number showing interest, is presently planned. The five-member squads will be groomed for entry in the Industrial Recreation Council Trophy Shoot Oct. 9.

Bow enthusiasts, including juniors and women, are asked to contact Al Phipps, CY-5-8194.

Next Archery Club shoot is scheduled Sunday (Aug. 14) at the Singing Hills Range. Registrations will be taken at 9:30 a.m.



IN THE FIELD—At left, M. J. Ferris, C. M. Keys, E. J. Tyndale, J. D. Meacham of Convair SD service publications consult with Capt. C. A. Dahlberg, AFSWC, Kirtland AFB, N.M., at Holloman AFB as armament loading crew installs GAR-11 missile in F-102. Crew members are: T/Sgt. Riffe, A1/C Brown, S/Sgt. Gonzales, T/Sgt. Raihl, supervisor, and T/Sgt. Warchocki. Men with microphones are describing loading steps for tape recordings. Photo by Ernie Flisrand.

Shoot, Meeting Planned For SD-Astro Gun Club

Convair SD-Astro Gun Club has scheduled a shoot Aug. 7 and a meeting on Aug. 9 at the Gillespie Field CRA facilities, Jack Swank, SD commissioner, reports.

The Sunday shoot, featuring trap, skeet and rifle events, will start at 9 a.m. Top shooters will receive tickets to the Cotton Patch Restaurant.

Main feature at the Tuesday 7:30 p.m. meeting will be a report on dove hunting in San Diego and Imperial Valley areas.

Swank termed the Gun Club's first registered skeet shoot July 17 a "highly successful" event. Nearly 40 participants competed, including a number from Los Angeles and others from Imperial Valley.

High Convair gun in the shoot was J. K. Field (Dept. 3-2), who scored 49 out of a possible 50 in Class AA. George Skurla (Dept. 218) placed second in Class D.

Booth Includes Space Antenna

Electronic capability of Convair San Diego and Convair Pomona will be displayed in a combined exhibit at the Western Electronic Show and Convention in Los Angeles Aug. 23-26.

The booth will have a photographic display of Convair electronic projects and will feature a model of a space track antenna, explained B. D. Skillman of SD electronics requirements, who is coordinating San Diego's share of the exhibit.

R. E. Honer, manager of SD electronics, and W. R. Rauth, chief of SD electronics requirements, together with Skillman, will be in attendance throughout the entire four-day convention. Other San Diego electronic engineers will be manning the exhibit and attending technical sessions.

Charles E. Dunn of Convair Pomona will chairman a session on "Antennas." Meyer Cook of Convair Astronautics is scheduled to deliver a paper on "Automatic Programming of Ground Support Equipment Using Computer Techniques."

Toastmasters Hold Meeting on Beach

Convair Toastmasters competed with sea gulls, ships, and planes at the July 18 meeting on the beach at Shelter Island.

Bob Emerson was in charge of arrangements for the gathering held on the lawn adjacent to the Outboard Speedboat Club overlooking San Diego Bay.

Awards went to Fred Stevens (Dept. 6), best speaker; Earl Erickson (Dept. 6), best table topic; Til Schaefer, also of Dept. 6, best performance; and Emerson of Astro, boner award.

Best speaker at the July 25 dinner meeting at Aztec Steak House in Pacific Beach was Chuck Willits (Dept. 6). Best performance award went to Ken Samples (Dept. 6), and Heinz Frei of Dept. 7 won best table topic honors. Herm Sumner of Astro took the boner award.

Another outdoor meeting is planned for Aug. 8 with information available from Duane Johnson, ext. 1320, Plant 1.

Some Entries Open For Campster Kits

A limited number of basic campster kits are still available and will be sold on a first-come, first-served basis, R. W. Menzie, Fishing Club commissioner, reports.

Total price for the basic kit and use of CRA Gillespie Field facilities and tools is $84.83. More than 30 SD persons have turned out basic campsters in the program. The units can be mounted on either trailer beds or pick-up trucks.

"The campster program may be expanded to include kits for "over-cab" models," Menzie added. "But the program will depend upon the number showing interest in campsters of this type."

Information can be obtained and reservations made on the campster building list by contacting Menzie at home, AT-1-8247, or employee services, ext. 1245, Plant 1.

40 Golfers Enter Dept. 400 Tourney

More than 40 golfers took part July 24 in a Dept. 400 tourney at Bonita, Don Costantino, tourney chairman, said last week.

The tooling department golfers were led by Ralph Way who low-grossed a 75. Low net honors were won by Shirley Onorato.

SD, Astro Sponsors For Third Coinarama Scheduled on Sunday

More than $200,000, including every bill denomination from $1 to $10,000, will be on display this Sunday (Aug. 7) in the Pavilion Room of the U. S. Grant Hotel during the third annual Coinarama.

Robert A. McCracken (SD Dept. 192), president of the Convair SD Coin Club, is general chairman of the Coinarama which is sponsored by the San Diego County Inter-club Numismatic Council. Coin clubs from Convair SD and Astronautics are included in the council.

Hours for the Coinarama will extend from 10 a.m. to 9 p.m. No admission will be charged for spectators. Coin enthusiasts planning to take part in the coin auctions, hourly door prize drawings and other events will be asked to post a 50¢ registration fee.

R. S. Toy (Astro Dept. 573) and C. R. Martin (Astro Dept. 771) are co-chairmen of the entertainment and education activities for Coinarama. Mrs. Toy is handling arrangements for a ladies' luncheon. Vince Bacon (SD Dept. 6) will be among exhibitors.

Badminton Tourney Planned This Month

Entries are now being taken for a badminton tournament scheduled the latter part of August, Tom Richardson, commissioner, reports.

The number of tourney divisions will depend upon the number of participants. Trophies and prizes will be awarded in each bracket.

Beginners will have equal opportunity to win prizes in a special novice division. For information and reservations contact Richardson, ext. 2301, Plant 1.

Supper, Ski Session Scheduled Tomorrow

Another event in the busy Convair SD Water Ski Club summer season is slated tomorrow (Aug. 4) combining skiing and a supper meeting at Gleason Point, Mission Bay.

Tom Mathews, commissioner, said both members and newcomers are invited to attend the affair starting at 5:30 p.m. Weekend ski sessions are continuing at Tierra del Fuego.

Radio Club Slates Picnic Next Month

Annual family picnic of the Convair SD Radio Club is scheduled Saturday (Sept. 10) at Pecan Park, J. B. Baker, CRA commissioner, reports.

"We are planning a full day of fun, games and prizes for all members of the family," Baker said, "and we hope all club members will reserve the date next month."

Compilation of the club's ham directory is nearing completion and an early distribution date is anticipated, Baker added.





WET AND WONDERFUL—Water Ski Club activities on east shore of Tierra del Fuego are going full tilt during hot summer weekends. At left is CRA-owned club boat and Tom Mathews, Ski Club commissioner (in water), Herb Wexler, club commodore (without shirt) and Hector Guerna (Dept. 6). Trying on skis in center photo is Theresa, 5, and her brother, Paul, 10, children of Commissioner Mathews. Combined skiing and supper event slated for tomorrow (Aug. 4).

Two Prizes Awarded In Fishing Contest

Only two CRA Fishing Club prizes were awarded during the June contest.

Top prize ($15) went to H. G. Elrich (Dept. 102) who landed a 26-lb., 5-oz. yellowtail. Ruth Menzie (wife of Bob Menzie, Dept. 31), ranked second ($10) with a 13½-in. trout.

Third place, worth $5, was not claimed last month. All SD persons can enter their fresh and salt water catches in the contest. Fish are judged on a percentage basis in different classes.

Entry blanks are available at employee services, Plants 1 and 2. Registration must be made by the fifth of the month after the catch.

CRA Sports & Recreation Convairiety

16 Winter Keg Leagues Slated for SD Bowlers

Bowlers at Convair SD can choose from among 16 leagues which are scheduled to roll on different days and different locations starting the first week in September.

"All keglers are urged to submit entries in the league of their choice as soon as possible," Jim Hayman, commissioner, said. "An indication of expected participation is needed now so that CRA can hold present reservations."

Following is list of leagues presently planned. Unless otherwise indicated starting time is 6:30 p.m.

MONDAY:

Bowlero (Lemon Grove), 825 scratch league, call Mike Brooks, HO-9-8793.

Clairemont Bowl, handicap league, Dick Hansen, ext. 2345, Plant 1.

Bowlero (Mission Valley), flight test league, Tony Zullo, ext. 1205, Plant 1.

TUESDAY:

University Lanes, new handicap league, H. Rifkin, ext. 2659, Plant 1, or H. Skilton, ext. 1437, Plant 1.

Bowlero (Mission Valley), engineering handicap scratch league, R. Johnston, ext. 2381, Plant 1.

Bowlero (Mission Valley), fabrication league, Bob Heath, ext. 2794, Plant 1.

Pacific Recreation, trio league (4 p.m.), Mike Brooks, HO-9-8793.

WEDNESDAY:

Pacific Recreation, mixed scratch league, Jim Hayman, ext. 1155, Plant 1.

Pacific Recreation, handicap league, Jim Hayman, ext. 1155, Plant 1.

Bowlero (Mission Valley), 750 mixers league, Ike Harper, AC-2-6351.

THURSDAY:

Pacific Recreation, handicap league, Jim Hayman, ext. 1155, Plant 1.

Victory Lanes, mixed foursome league, John Sawicki, ext. 2982, Plant 1.

FRIDAY:

Tower Bowl, 800-850 scratch league, Mike Brooks, HO-9-8793.

Clairemont Bowl, new handicap league, Dave Caffo, ext. 2451, Plant 1.

Clairemont Bowl, new 775 scratch league, Chase Allen, ext. 2766, Plant 1.

Bowlero (Mission Valley), jet line league, Jim Hayman, ext. 1155, Plant 1.

Swing-shift keglers can obtain information on league activity by contacting Mike Brooks, HO-9-8793.

CRA Calendar

(In view of the fact that Convairiety now carries the complete CRA calendar only at intervals, it is suggested that readers may desire to clip for future reference.)

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AEROMODELERS — Vic Korski, commissioner, ext. 2250, Plant 1. For information call Gary Witt, ext. 1508, Plant 1. Competitions usually first Sunday of month, 8:30 a.m., Clairemont-Mesa field.

ARCHERY—Gil Crosthwaite, commissioner, ext. 1245, Plant 1. Club meets third Thursday, 7:30 p.m., CRA Clubhouse, Pacific Hwy. Workshop in clubhouse open each Tuesday and Thursday, 7-9 p.m. Monthly shoots on second Sunday of each month.

ASTRONOMY—Keith Sears, commissioner, ext. 2900, Plant 1. Club meets first and third Fridays, 8 p.m. at CRA Recreation Area, Gillespie Field, El Cajon.

BADMINTON—Tom Richardson, commissioner, ext. 2301, Plant 1. Organized play and instruction Tuesdays, 7:30 p.m., Federal Bldg., Balboa Park. Open play for Convair employees and their families each day.

BALLROOM DANCING — Martha Woodberry, commissioner. Call ext. 1245, Plant 1, for information. Grace McGrath Dance Studio, Pacific Ballroom, 1106 Broadway, BE-4-8686.

BASEBALL—Pete Beyrer, commissioner, ext. 1245, Plant 1.

BASKETBALL—Gil Crosthwaite, commissioner, ext. 1245, Plant 1, after 1 p.m. (GIRLS' TEAM: Call Jean Todd, ext. 1017, Plant 1.)

BOWLING—Jim Hayman, ext. 1155, Plant 1; Mike Brooks, HO-9-8793, commissioners.

BRIDGE CLUB—Pete Beyrer, commissioner, ext. 1245, Plant 1. For information call Frank Westphal, ext. 2225, Plant 1. Meetings first and third Tuesdays, 7:30 p.m., at Hotel Barcelona, 326 Juniper St.

CAMERA CLUB—C. E. Schultz, commissioner, ext. 289, Plant 2. Regular meetings second and fourth Mondays, 7:30 p.m., Photo Arts Bldg., Spanish Village, Balboa Park. Darkroom in CRA Clubhouse available to club members.

CHESS CLUB—Gil Crosthwaite, commissioner, ext. 1245, Plant 1, after 1 p.m. Club meets each Wednesday, 7:30 p.m., CRA Clubhouse. Sets available for lunch period games.

CHORAL CLUB — Martha Woodberry, commissioner, ext. 1245, Plant 1. W. A. Vogel, director. Rehearsals each Monday, 7:30 p.m., CRA Clubhouse.

COIN CLUB — Gil Crosthwaite, commissioner, ext. 1245, Plant 1, after 1 p.m.

DELTA DIVERS — Gill Crosthwaite, commissioner, ext. 1245, Plant 1, after 1 p.m. Meet fourth Tuesday of each month, 7:30 p.m., Conference Bldg., Balboa Park.

FISHING—R. W. Menzie, commissioner, ext. 1181, Plant 1. Club meets third Tuesday of each month, 7:30 p.m., Gillespie Field Clubhouse. Boat Building, E. R. Fink, chairman, ext. 1144, Plant 1.

GARDEN CLUB—E. L. Zimmerman, commissioner, ext. 1761, Plant 1. Club meets second Wednesday of each month, 7:30 p.m., Floral Assoc. Bldg., Balboa Park.

GLIDER CLUB—Vic Korski, commissioner, ext. 2250, Plant 1. For information, call Ted Sanford, ext. 1267, Plant 1.

GOLF—Ken Wulfemeyer, commissioner, ext. 1705, Plant 1. Convair Golf Club, call Harold Purnell, ext. 1313, Astronautics.

GUN CLUB—Jack Swank, ext. 1161, Plant 1; Gene Horstman, ext. 424, Plant 2, second shift, commissioners. Club meets second Tuesday of each month, 7 p.m., Gillespie Field Clubhouse. Club shoot, rifle, trap and skeet, first Sunday of each month at CRA range overlooking Gillespie Field, El Cajon. Open shooting each Sunday.

ICE SKATING — Martha Woodberry, commissioner, ext. 1245, Plant 1. Skating sessions for Convair employees and their families each Thursday at Iceland, 6055 Lake Murray Blvd. Special Convair rates between 6:30 and 8 p.m.

IN-PLANT ACTIVITIES — Equipment available for horseshoes, washer pitching, shuffleboard, chess, checkers, also cards for bridge, pinochle, etc. Contact CRA headquarters, ext. 1245, Plant 1, or department CRA representatives.

JEEP CLUB—Seasonal outings only. For information call Gil Crosthwaite, ext. 1245, Plant 1.

JUDO — Pete Beyrer, commissioner, ext. 1245, Plant 1. Instruction each Thursday at 7 p.m. in CRA Clubhouse on Pacific Hwy.

MODEL RAILROAD — Pete Beyrer, commissioner, ext. 1245, Plant 1. Meeting each Friday at 7:30 p.m., House of Charm, Balboa Park.

MOVIES — Reduced-price movies each Tuesday night at Academy Theater, 3721 University Ave. Adults 25c; children, 15c.

PISTOL CLUB—Ash Bishop, commissioner, ext. 1761, Plant 1. Home phone, HU-8-3460. Club shoots second and fourth Sundays of each month at 9 a.m. San Diego Police Pistol Range, Federal Blvd. and Home Ave.

RADIO CLUB—J. B. Baker, commissioner, ext. 491, Plant 1. Club meets Thursday after issue of **Convairiety,** 7 p.m., at Radio Club Headquarters, Harbor Drive.

RIDING CLUB—Marc Beresford, commissioner, ext. 1777, Plant 1. C. L. Pogorel, co-commissioner, ext. 2980, Plant 1.

ROCKHOUNDS — Dan Whorton, commissioner, ext. 426, Plant 1. Lapidary classes Tuesdays and Wednesdays, 7-9 p.m., Rockhound Shanty. Classes for second shift, Tuesdays, 12:30-2:30 p.m. Regular meetings second Thursday of each month, 7:30 p.m., Gillespie Field CRA Clubhouse.

ROLLER SKATING — Convair skate night, third Monday each month. Free tickets at employee services offices. Saturday matinees each week, 2-4:30 p.m., Skateland, Front and G. Admission 25c per person for Convair employees and their families. Admittance by club membership card. Cards available at employee services, both plants.

SKI CLUB—Joe Harris, commissioner, ext. 1845 or 2958, Plant 1.

SOFTBALL — Tony Berardini, ext. 2910, Plant 1; Gil Crosthwaite, ext. 1245, Plant 1, commissioners.

SOLO FLYERS—Vic Korski, commissioner, ext. 2250, Plant 1. For ground school information contact Rex Robinson, ext. 1636, Plant 1. For commercial ground school call Bert Shields, ext. 2788, Plant 1.

SPECIAL EVENTS and COMMISSIONERS-AT-LARGE — Eddie Robinson, Paul Pearson, Jerry Schultz, Palmdale.

SPORTS CAR CLUB—Gerry Wright, commissioner, ext. 2074, Plant 1. Club meets first Wednesday of month, 7:30 p.m., Natural History Museum, Balboa Park.

SQUARE DANCING — Maury Scholz, commissioner, CY-5-3806. Call ext. 1245, Plant 1, for information. Beginners and intermediate classes, Mondays, 8 p.m., Americal Legion Hall, 4061 Fairmount Ave. Advanced classes Tuesdays, 7:30 p.m.; party night, fourth Saturday of month, 8 p.m., both at University Heights Community Center, 4044 Idaho St.

STAMP CLUB—Jack Benedict, commissioner, ext. 2693, Plant 1. Club meets first Thursday of each month, 7:30 p.m., Conference Bldg., Balboa Park.

SWIMMING — Pete Beyrer, commissioner, ext. 1245, Plant 1. Family swim night first Saturday of each month, 7-9:30 p.m., at Mission Beach Plunge.

TABLE TENNIS—Pete Beyrer, commissioner, ext. 1245, Plant 1.

TROPICAL FISH—Pete Beyrer, commissioner, ext. 1245, Plant 1. Club meets second Tuesday, 7:30 p.m., CRA Clubhouse, Pacific Hwy. Workshop every Tuesday and Thursday, 7 p.m.

VOLLEYBALL—Pete Beyrer, commissioner, ext. 1245, Plant 1.

WATER SKI CLUB—T. E. Mathews, commissioner, ext. 2068, Plant 1.

WOMEN'S ACTIVITIES — Martha Woodberry, commissioner, ext. 1245, Plant 1.

Gmyr Leads Golfers In Dept. 15 Sweeps

Low gross scores of 76 and 82 posted by Stan Gmyr and Ed Davies led the field July 16-17 at a Dept. 15 golf sweeps played over the Singing Hills course.

Low net honors in the customer service department tourney went to R. E. Sommers and Mark Smith. Trophies were awarded winners and runners-up in both brackets. More than 40 golfers competed.

Eagles Continue Winning Ways; Shop League into Second Round

Already the first-round titleholder in the San Diego Amateur Softball Association League, the Convair SD Eagles are continuing their winning habit, sporting four wins and one loss, good enough to tie them for first place in the second round.

Not the least reason for their fine showing is pitcher Jerry Stryker who late last week had pitched 36 consecutive scoreless innings. In his last four outings Stryker has turned in one no-hit game, two one-hitters, and one two-hit performance.

Convair SD's Rose Canyon squad shows continued improvement in the SCMAF league as the second round of play starts. In addition to a 4-3 win over Shell Oil, the SD nine dumped Cold Plumbing 4-1. Their loss was to Escondido Plaza 3-0.

Shop league play saw Dept. 280 Mockup go down to its first American League defeat. Coach Bill Ash's F-106 team pulled off the upset 11-9. In other games the 880 Jets clipped Dept. 6 Dynamics 11-4; the Jets lost to Mockup 2-1; and Dynamics outslugged F-106 18-13.

Dept. 135 Fuselage picked up two more wins in the National League, whitewashing Dept. 6 Flite Test 4-0, and Dept. 97 Tabulating 8-2. Dept. 97 Tabulating lost to Dept. 6 Loft 7-2, then Loft lost to Flite Test 4-1.

Broadway Sweeps Two Pistol Events At July 24 Shoot

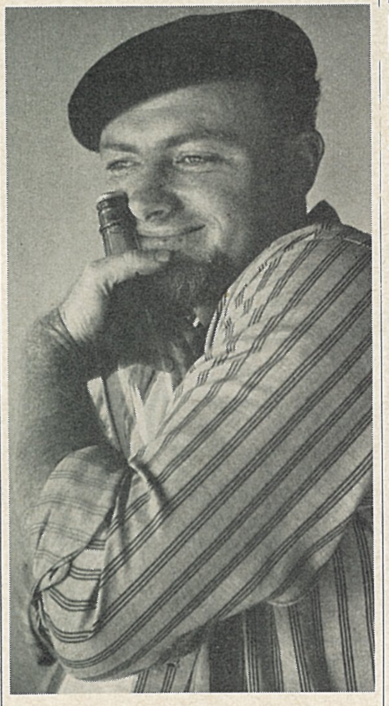
B. L. Broadway (Dept. 115) posted winning scores in both .22 short national and police course events July 24 at the CRA Pistol Club matches.

In the police course event Broadway registered an excellent 295 score, four points better than runner-up Carl Hornburg (Dept. 139).

W. G. Walker (Dept. 6) and Ralph Picard (Dept. 7) came in first and second in the expert class with tallies of 279 and 272.

Top honors in the sharpshooter class went to A. B. Carlson (Dept. 68) with 269 points, and Dorcus Utter (wife of Arley Utter, Dept. 129), with 268 points. A 245 score, tallied by Harvey Ingalls (Dept. 6), led the marksman class.

Trailing Broadway's 282 score in the short national were Hornburg with 273 points and Joe Williamson (Dept. 401-5) with 272.



BEATNIK—Interesting character study of Ron Ainsworth (Dept. 6) was snapped by his wife, Joan, winning black-and-white award in recent Convair SD Camera Club contest.

Thomason New Riding Prexy

New officers were elected and a schedule of activities decided by Convair SD Riding Club last month.

Heading the new officeholders are V. V. Thomason (Dept. 6), president, and Don "Shorty" Wescott, vice president. Rounding out the slate are Dottie Zanarini (Dept. 6) and Mrs. Jack Monks (wife of J. L. Monks, Dept. 15), secretary and historian, respectively.

The club also firmed plans for a Horse Show Aug. 21 at the Flying Hills Arena. Arrangements and show details will be the topic of discussion at the next meeting (Aug. 11) at the CRA Clubhouse, Gillespie Field.

On July 24 more than 40 members and guests attended the season's first trail ride and steak fry in Poway Valley, Foster Kelly, club spokesman, reports.

"Despite sun and dust it was a very enjoyable event," Kelly said, "and we owe a special word of thanks to the three skilled chefs, Mrs. Charles Pogorel, Mrs. Luke Barbour, and Mrs. Bruce White, for the excellent meal they prepared.

EIGHT WIN AWARDS IN PHOTO CONTEST

Eight awards in black and white and color categories were made at the third quarterly Convair SD Camera Club contest judged by Ken Rinker of Lens Art and Astrolens photo clubs.

Ron Ainsworth picked up two of the black and white awards, a third went to J. P. Perrington. Color prize winners were Bill Wallace, Bill Eade, Leo Vigneault, Joan Ainsworth and Ron Ainsworth.

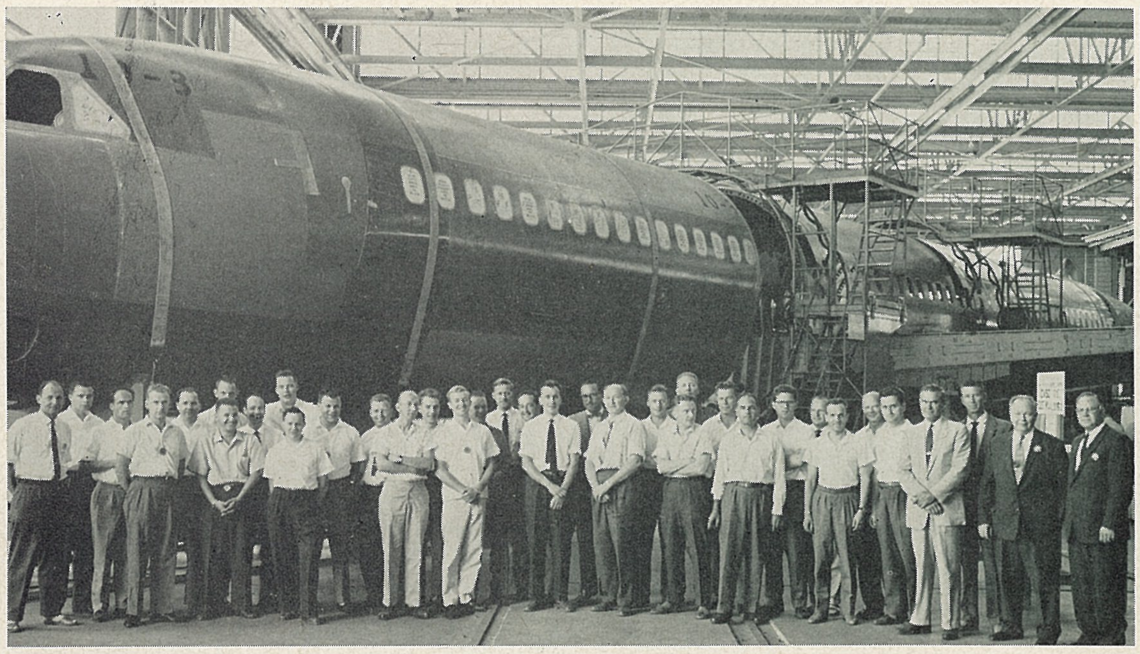
Next event on the Camera Club agenda will be a barbecue and picnic meeting next Monday (Aug. 8) at 7 p.m. at Pecan Park.

Night Training Trek Set for Jeep Club

Jeep Clubbers from Convair SD will join with the San Diego Ridgerunners for a rough 250-mile, cross-country trek Aug. 6-7.

Drivers will depart from Gillespie Field at 6 p.m. Saturday and drive all night as part of a training mission for Civil Air Patrol.

Additional information can be obtained by calling Art Thomas, HI-8-1602, after 5 p.m. weekdays.



'600' CLASS—SAS and Swissair key personnel line up beside third Convair 600 jet transport now in mate on Convair SD production line as they arrive at San Diego for first customer service training course. At far right are C. H. Williams, W. F. Ashmore, Frank Laffoon, M. R. Addis, all SD Dept. 15.

Teams From Swissair And SAS Studying 600

During the next few weeks at least 35 airline men from Scandinavia and Switzerland will be at Convair San Diego to learn the most intimate details of Convair's 600 jet airliner.

First of three training programs for Scandinavian Airline System and Swissair got under way July 18 in Convair SD's customer service training area.

Until Aug. 19, key airline personnel from SAS bases in Denmark, Norway, and Sweden and Swissair's headquarters at Zurich, Switzerland, will be taking courses on the 600's systems. Although the entire group will not be at Convair SD for the full five weeks, a number of SAS and Swissair men will be taking some part of the program throughout the period.

The entire program, set up by transport service section of SD customer service department under L. J. Bordelon, includes three main divisions: electrical, pneumatics, and aircraft systems. Electrical course includes study of flight controls, landing gear controls, fuel system control, fire extinguishing system; pneumatics deals with such areas as ice and rain protection, air conditioning, pressurization. Aircraft systems course emphasizes familiarization with the plane's structure, flight controls, hydraulic system, landing gear. It will be climaxed with time in the cockpit procedures trainer.

Coordinating the training for Swissair are Max Westreicher, Hans Michel, and Arno Ruffner, while Odd Hokstad is coordinator for SAS's Norway region and H. Moller-Nielsen, SAS Denmark region.

Lodged in San Diego hotels, the Convair 600 students, all training and maintenance supervisors and instructors, as well as pilots and flight engineers, put in a full eight-hour day at the Convair SD plant. Their classes start at 8 in the morning and continue, with only short coffee breaks and lunchtimes, until 5 p.m. when they are delivered back to their quarters in Convair buses.

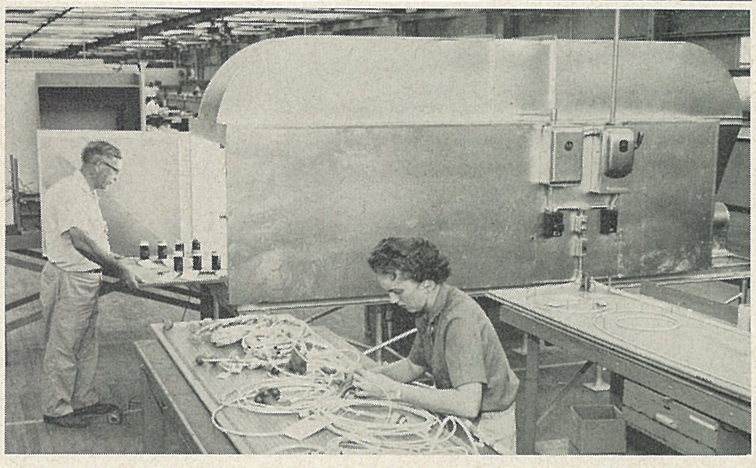
They are spending the weekends sight-seeing in the Southern California area, with Knott's Berry Farm number one attraction. Disneyland has been a close second. They all say they are reveling in San Diego's warm weather after the cool summer in Europe this year.

Swissair has contracted for seven of Convair's newest jet transports and SAS, two. Deliveries are scheduled to start in the spring of 1961.

Qualifying customer service maintenance courses for American Airlines opened July 25 for a six-week run. Other programs will see Japan Air Lines' people at San Diego for training on the 880-M version toward the end of August, said Don Maxion, SD field service representative coordinating training.



F-102 QUEEN—Col. Dick M. Crowell, commander of 331st Fighter-Interceptor Squadron, Webb AFB, Big Spring, Texas, crowns Marilyn Kay Penny "Miss Delta Dagger" at open house.



QUICK DRY—Vincent Crisci, Convair SD electric bench, slides tray of electrical assemblies into new oven for curing as Elizabeth Michael prepares others.

880 Electrical Harnesses Baked In SD's New Aluminum Oven

Assemblies put together in Convair SD electric bench department at Plant 1 for Convair jet transports are being baked in a brand-new oven, first used in the Plant 1 operation.

The large aluminum oven, built by SD plant engineering, on the principle of an electric clothes dryer, replaces a battery of lamps formerly used for drying of potting compound on electrical connections. Curing time has been cut from 48 hours at 75 degrees F. to an hour-and-a-half at 180 degrees.

Potting compound, a synthetic rubber material used instead of clamps on electrical assemblies to take strain off solder contacts and provide a moisture barrier between contacts, must be thoroughly dried before handling. The premixed material is kept in a deep freeze at minus 30 degrees F. before use. It is shot under pressure into molds placed around contact points and the whole assembly placed in the oven for curing.

With the new dryer, said C. P. Beauregard, assistant foreman, production can be increased. Now, electrical harnesses for four or five 880s or 600s can be processed in a day. Fourteen harnesses go into the wings of each airliner.

(A large 30-ft. oven with continuous belt operation has been in use at Plant 2 for a couple of years to cure jet interceptor assemblies.)

Convair Scientists To Instruct Courses

Three staff scientists from Convair Scientific Research Laboratory will be instructing graduate courses in San Diego State College's evening program this fall.

J. J. Sheppard will conduct a seminar in mechanical engineering; Bernard M. Leadon will instruct a class in gas dynamics of the upper atmosphere; and W. S. Bradfield, thermodynamics.

All of these courses are designed toward a master of science degree in mechanical engineering.

Final date for graduate admission is Aug. 19. Information may be obtained by calling JU-2-4411, ext. 471.

Hospital Reservists Go on Active Duty

Five Convair FW employees served on active duty with the 622D USAF Hospital (Reserve) at Carswell AFB July 16-30.

They were Teddy Hayes, Walter R. Hill, James Hanson, Harold Williamson and Jack Thomas.

Purpose of the hospital unit in time of national emergency is to staff and operate a complete fixed base Air Force hospital.

Central Vacuum Pump Station Serves SD's Bonding Operations

A centralized vacuum pumping station has gone into operation at Convair SD Plant 1 for bonding operations in Bldg. 3.

The large pumping station will replace at least a dozen small units, providing far more vacuum pressure than all of them put together, said Vern Sharp, superintendent of plant engineering, in charge of installation.

All bonding processes of Dept. 129, plastics and interior trim, and Dept. 119, metal bond fabrication and assembly, including honeycomb bonding, will be supplied from the main station at Col. D-6 in Bldg. 3. Vacuum pressure is used in layup and bonding of metal or fabric materials to draw out air from between layers, preventing contamination and eliminating moisture for more satisfactory bonding operation.

A 700-ft. main vacuum line extends the length of the building with branch lines feeding into various bonding facilities on ground floor and mezzanine of the east side of the building. Lines will also feed to the existing 20-ft. autoclave and a larger 30-ft. autoclave to be installed this fall in the south end of Bldg. 3. At present, 168 vacuum outlets are fed from the lines, with more to be installed as necessary, said Sharp.

The entire station installation consists of two single-stage rotary vacuum pumps and one second-stage pump. Entire capacity of the pumping station can be doubled with addition of another second-stage pump, said Sharp.

Engineering Review Courses to Prepare For November Exam

Convair engineers planning to take November examinations to qualify as California certified professional engineers may register now for review courses.

Of special interest to Convair applicants will be two courses offered by University Extension, "Electrical Engineering Review" and "Review of Mechanical Engineering Fundamentals."

Convair men assisting in instruction include J. J. Fithian, and Ernest A. Hamilton, both Astro electronic engineers; Richard K. Walter, Convair SD design specialist; Edward M. Getzoff, Astro mechanical engineer; Kenneth C. Hendershot, senior thermodynamics engineer at SD; and Philip J. Swanson, Astro group engineer.

Carl G. Erickson, Astro senior electronic engineer, is coordinator of the mechanical engineering review course.

Information on the courses may be obtained from Extension office, 1221 Fourth Ave., SD, BE-2-7321. For information about the examinations themselves, call local office of the State of California Board of Registration for Civil and Professional Engineers, AT-1-0427.

Aug. 17 Club Meeting To Feature Carnival

Dixieland jazz will be combined with a carnival atmosphere including a midway, clowns and barkers at the Aug. 17 meeting of the Convair San Diego Management Club.

The "Games and Fun Night" will start at 5:30 p.m. in the Balboa Park Club and feature the entire floor show from the Bali Hai. Dixieland will be styled by Bert Hazlett's "Dixie Hasslers."

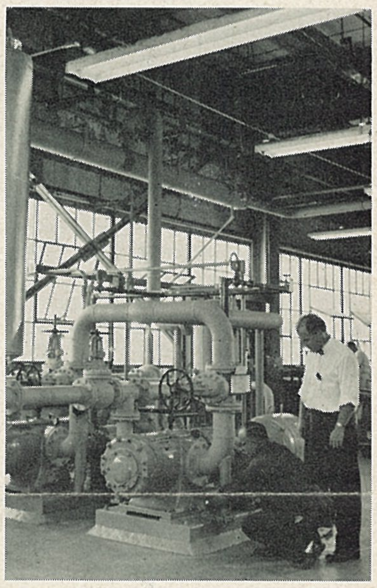
Tickets will be on sale during the next two weeks for Management Club members.

Jaycee Registration Starting For Fall

San Diego Junior College registration for the fall semester will begin today (Aug. 3) with classes scheduled to start Monday (Sept. 12.)

Returning students will enroll first and new students may start to enroll Aug. 15.

Information and counseling are available at the college from 8 a.m. to 2 p.m. for day students, and from 5-8 p.m. for evening students.



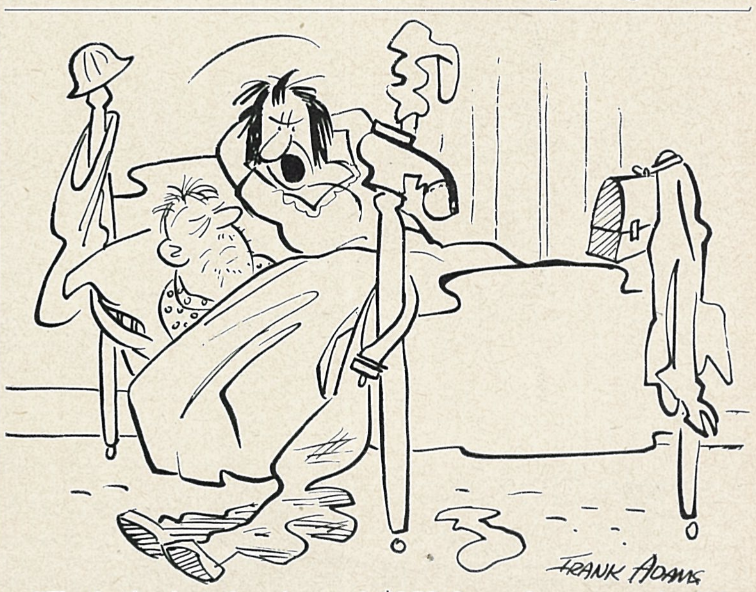
BIG PUMP — Vern Sharp (at right), Convair SD superintendent of plant engineering, watches J. D. Sappington (Dept. 25) make final adjustments in installation of large vacuum pumping station in Bldg. 3, Plant 1.

Booklets Explain CIP, ES Programs

Distribution of new booklets explaining the Convair Employee Suggestion and Cost Improvement Proposal programs will be completed by the end of this week at Convair San Diego.

The 18-page booklets, which feature a foreword by Convair president J. V. Naish, in some cases are being passed out with paychecks. Others are being circulated through department channels.

They explain, in detail, the Convair cost-reduction programs for flat-salaried and hourly persons. They were prepared, as a joint venture, by the industrial engineering departments at San Diego, Fort Worth, Pomona and Astronautics operating divisions.



"That's the last time I spend $150 for a four poster bed!"

53 109

C-V CONVAIR

Published every other Wednesday.

GD GENERAL DYNAMICS

Convair Division of General Dynamics Corporation.

Convairiety

San Diego EDITION

(Serving Convair San Diego)

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Vol. 13, No. 17 — Wednesday, August 17, 1960

SAN DIEGO, POMONA, ANTELOPE VALLEY, CALIF. — ASTRONAUTICS OFF-SITE BASES, FORT WORTH, TEX.



RECORD SAVINGS—Allie Lee Jones (Dept. 280) shows R. C. Loomis, Convair vice president and SD operating division manager, tubing change he recommended that has saved Convair $50,073 in first year. Jones was given check (in shirt pocket) that brought ES award to more than $5,000, a new Convair record.

Youthful Tube Mockup Man Collects $5,000 For Record ES Award

Allie Lee Jones, a 25-year-old tube mockup man in Dept. 280, last week rang the Employee Suggestion bell for $5,007.30, largest single ES award ever made at any Convair operating division.

R. C. Loomis, Convair vice president and San Diego operating division manager, last week gave Jones a check for $4,982.30. Jones had previously received an installment for $25. The ES has already been in effect for one year and the second check was the final installment.

"I knew the amount would be substantial, but this is a real surprise," said Jones. He and his wife, Judy, are parents of a seven-month-old boy, Gary.

"I know exactly what to do with this money," he added, "It will be a fine down payment on a new home.

"Frankly, when I submitted the ES I was more concerned with improving the reliability of the F-106 than with any type of savings," he stated.

Jones' ES, during its first year of installation, has saved the company $50,073.

He recommended using a hard aluminum alloy in tubing connected by military specification fittings in F-106 aircraft. The change solved most of the then current tube leakage problems in the wing fuel systems.

Subsequent engineering and shop tests showed a resultant 80 per cent improvement over previous installations. Tubing previously used had been of lighter weight, more easily damaged by overtorque, handforming, and tool marks.

This latest ES award makes it two-in-a-row for Dept. 280 in record dollar savings totals. Last year, in June, two Dept. 280 men jointly cashed in for a $5,639.10 award. The total was split between the two.

Jones, at 25, is also the youngest ES submitter to set a cost-reduction record.

THREE GIVEN NEW EDUCATION DUTIES

Responsibility reassignments in Convair SD educational services were made this month to more effectively carry out the department's function, announced H. W. Rubottom, SD chief of educational services.

M. S. Lachman is now responsible for executive as well as management development. R. H. Nall is in charge of professional education, including professional-technical courses especially for engineers. W. H. Goggin is assigned to manufacturing-technical education.

New locations of the three are: Lachman, Bldg. 16, ext. 1671; Nall, Room 378, Bldg. 51, ext. 1827; Goggin, Bldg. 15, ext. 491 or 2568.

Goggin also is in charge of the
(Continued on Page 2)

Padres Will Play Salt Lake City On 'Convair SD Night' Sept. 7

A special "Convair San Diego night" is being planned Friday (Sept. 9) at Westgate Park with all tickets to be sold on a two-for-one basis.

Upper and lower box seats will go on sale at SD employee services, Plants 1 and 2, on Thursday (Sept. 1). SD folks will get two tickets for the regular $2 admission charge.

The Convair night will feature a twilight doubleheader, matching the San Diego Padres and Salt Lake City. First game will start at 7 p.m.

In addition, SD folk will get an extra chance to win prizes playing "Fun-go" (baseball's answer to Bingo) during the game. Convair "Fun-go" cards will have two extra squares marked out as bonuses.

Among prizes to be awarded are cutlery, watches, a trip to Las Vegas, lamps and other household furnishings.

When the 2,000 tickets go on sale it will be on a first-come, first-served basis.

Beauty Queens Inaugurate New 880 Route

Delta Queen, first Convair 880 jet airliner to go to a customer airline, shared the stage with five other beauty queens as Delta Air Lines inaugurated 880 service out of Chicago the first of this month.

The Delta Queen is the Convair 880 which set a new coast-to-coast speed record by flying from San Diego to Miami in 3 hours and 31 minutes on its delivery flight Feb. 10. Veteran of Delta's 880 fleet, it was due to be grounded last week for its first engine change after 1,000 hours in the air.

It was the first 880 out of Chicago at 8:35 a.m., Aug. 1 on a newly-scheduled flight of 1 hour and 21 minutes to Atlanta, Ga. Other 880s left Chicago the same day for Houston, Memphis and New Orleans.

Beauty queens from each of the five cities served by the new jet flights gathered in Chicago to take part in inauguration ceremonies. Each headed the passenger list on the 880 making the first flight to her home town.

Time of 880 jet flight from Chicago to Houston is 2 hours, 3 minutes, cutting the flying time considerably from former schedule of 3 hours, 21 minutes. Chicago to Memphis is 1 hour, 15 minutes, and from there to New Orleans, only 56 minutes.

Delta officials say that 880s in passenger service with the airline have been filled to over 70 per cent capacity since they began flying airline routes May 15.

Convair representatives on the spot for inauguration of 880 flights brought back the report that Eastern and Midwestern people are becoming well-acquainted with Convair jet airliners. During Delta Air Lines' introductory program films of the 880 have been seen on television and made available to civic groups in areas surrounding cities served by Convair jets.

Passenger agents remark that more and more people are specifically requesting flights on Convair 880s. Utilization time of 880s over Delta routes has been
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'Injury Loss' Name Adopted

To add greater emphasis to the fact that injuries are expensive, both to Convair and to its employees, a new terminology has been adopted at San Diego operating division.

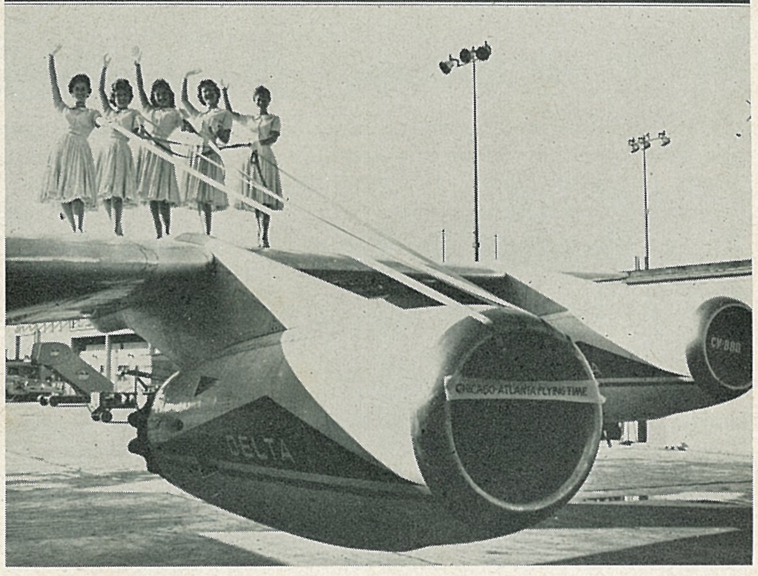
Formerly known as the "safety section" of industrial relations, the section now will be called "injury concern and control." An accident becomes "injury loss"; a lost-time case henceforth will be referred to as a "major injury and time loss."

"Thus far in 1960 injury losses at SD division have cost Convair $103,000—in spite of the fact that we have one of the lowest ratings in the industry. We have no way of assessing how much these cost the individuals, not only in suffering but in money, too. The total cost to Convair in 1959 was $143,000 and it was $223,000 in 1958. Again, this does not include the individual's loss," M. C. Val Dez, chief engineer in charge of the injury concern section, said.

"The easiest way to save a dollar for a Convair employee and for Convair is to prevent employees from being hurt.

"We hope that this new vocabulary will help emphasize that aspect of the problem."





SIX "QUEENS"—Girls are beauty queens from five cities which are being given jet 880 service by Delta Air Lines with inauguration of Chicago schedule. Sixth "queen" is 880 itself. Girls are representatives of Chicago, Houston, Atlanta, Memphis, New Orleans.

New $600,000 Cafeteria Dedicated and Opened

Approximately 100 San Diego civic, business, and industrial leaders previewed Convair San Diego's new cafeteria and food preparation center at the Aug. 5 dedication.

R. C. Loomis, Convair vice president and San Diego manager, welcomed guests to the new, modern $600,000 structure recently completed adjacent to General Office building on Pacific Highway.

The cafeteria was opened officially for Convair personnel this week (Aug. 15), said H. A. Smith, SD chief plant engineer.

Before a tour through the building, Smith explained outstanding features of the cafeteria to dedication guests, stressing its pleasing, comfortable and functional design. He drew visitors' attention to the baffle wall construction designed to deaden street sounds.

"We are extremely proud of the completed building," said Smith, "and credit our contractors with a job well done." Contractor for construction, which began last December, was Anthony Rossi Co. Architect was Albert C. Martin and Associates of Los Angeles.

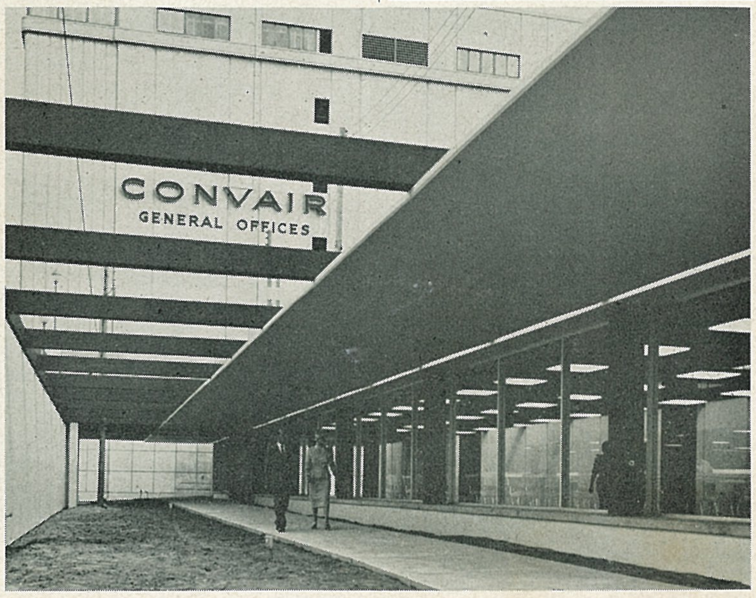
Built of reinforced concrete, the new Convair SD food center, which is operated by Prophet Co., will replace the old cafeteria building nearby. Landscaping around the new building will be done next month following removal of the former cafeteria structure.

All food served from canteens and Plant 1 cafeteria will be prepared in the up-to-date kitchens of the new cafeteria, explained
(Continued on Page 2)

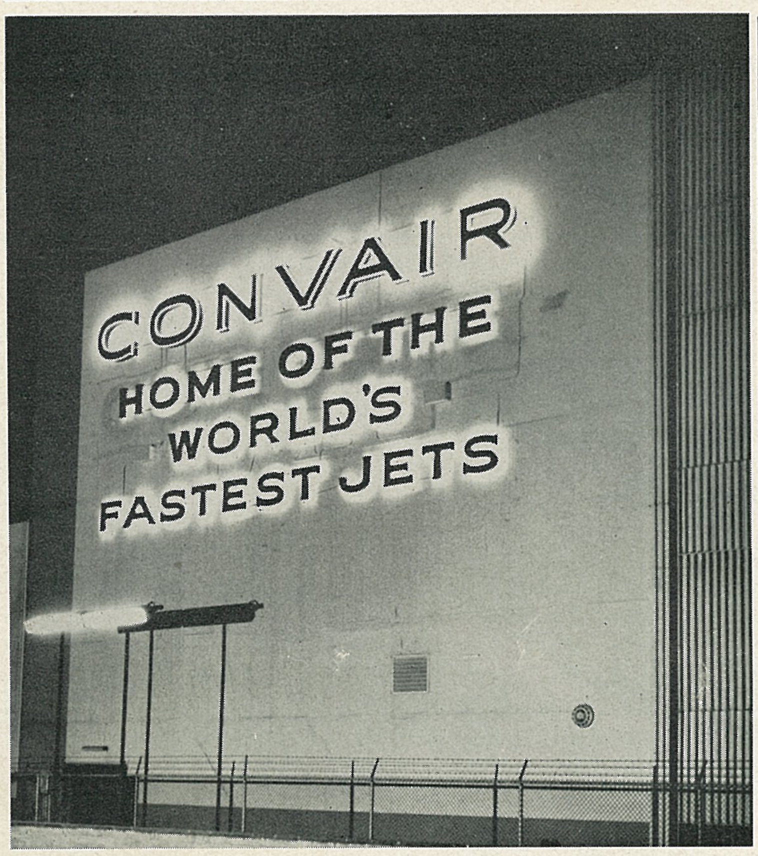
Carnival Meeting For Club Tonight

Balboa Park Club will be the setting tonight (Aug. 17) when Convair SD Management Club stages its "Games and Play Night" starting at 5:30.

Sponsoring departments, major and final assembly, Plants 1 and 2, have planned a carnival midway, floor show, Dixieland music, buffet and refreshments.



CHOW DOWN—This is view of photogenic new cafeteria at San Diego, which opened for business this week.



GREETINGS—Travelers at San Diego airport are greeted by new sign which went into action this month on side of Bldg. 51. Formerly "Home of Convair-Liner," it's now "Home of World's Fastest Jets."

Area Readied in Bldg. 3, Plant 2 For Atlas Tank Manufacturing

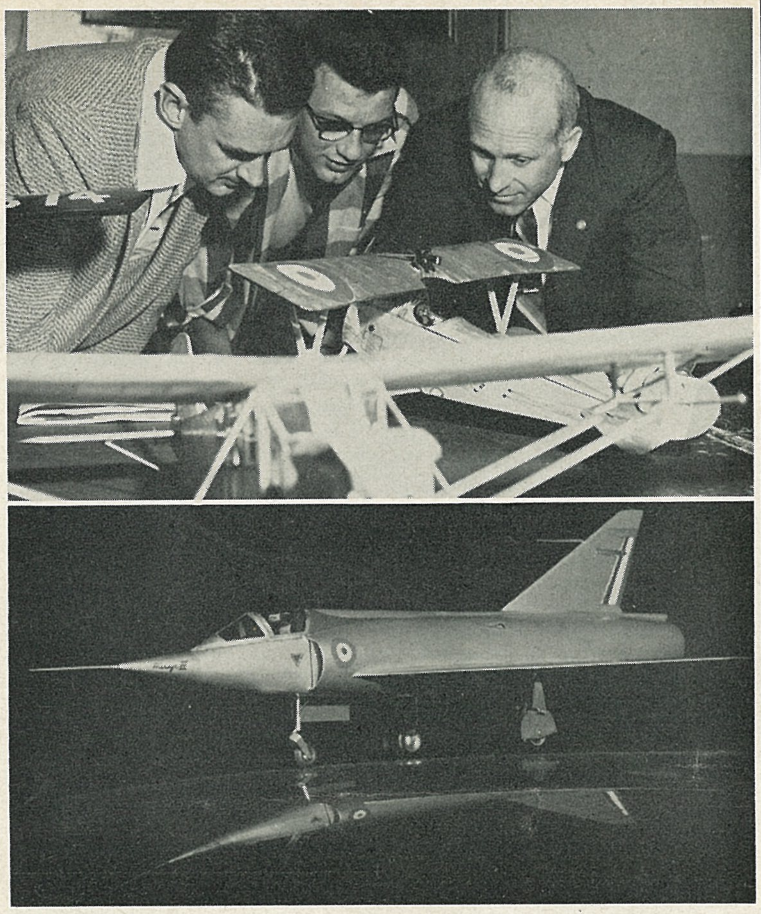
Convair Astronautics this month is setting the stage for transfer of most of its missile tank manufacturing operations from the Kearny Mesa site to new quarters in Bldg. 3 at Convair SD Plant 2.

By early 1961 Astro will be conducting the bulk of its tank manufacturing operations at Plant 2.

Since early June work has been progressing steadily at Plant 2 in preparing the area for future manufacturing operations. At the same time some $616,000 of new capital government equipment was being installed to assist in the Atlas program.

Except for a small mezzanine area, Astro has taken over all of Bldg. 3. Convair SD has completed move of F-106A final assembly operations into Bldg. 2 to make way for Astro operations.

Next month will see first transfer of equipment from Astro's main plant to Plant 2. With the equipment will go some 361 Astro people.



MODEL MAKERS—Aeromodeling is happy hobby of small but enthusiastic group at Convair SD. Club members are particularly proud of first-place winner (upper photo) in recent contest. Plane, Newport II, is work of David Vincent, junior age group contestant. Making final verdict are judges (from left): R. D. Baxter, P. A. Kessel, E. E. Whigham (all Dept. 6). More dashing is Denault Mirage III, French F-106 version. Sleek delta-winger is handiwork of W. E. Mooney (Dept. 6). Ducted fan, fully enclosed in model, provides propulsive force.

★ Convairiety ★

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SD Editorial Offices, Building 32, Plant 1, ext. 1071. Staff: Grayce Fath, Helen Pemberton, Fred Bettinger.

Astronautics Editorial Offices, Bldg. 8, Astro site, ext. 3322. Staff: Bryan Weickersheimmer, news editor; Willard Harwood.

FW Editorial Offices, Col. 73C, ext. 2961. Mailing address: Convairiety, Convair, Fort Worth, Texas. Telephone PErshing 8-7311. Staff: Dave Lewis, news editor; Susan Tilley, Mary Beck.

Pomona Editorial Offices, Room 106-D, Bldg. 1, ext. 6226/5279, mail zone 3-3. Staff: James Combs Jr., news editor; Dorothy Keller.

Palmdale-Holloman Editorial Offices: Chuck Willey, CRA office, Room 36, Bldg. 301B, ext. 331, Palmdale facility. O. J. Ancel, industrial relations, ext. 20, Holloman AFB.

Model Shoot Slated For SD Camera Club

Costume and glamour models will pose for members of Convair SD Camera Club at a 7:30 p.m. shoot Monday (Aug. 22) in Spanish Village Photo Arts Bldg., Balboa Park. Refreshments will be served and guests are invited to bring cameras and join the shoot session. Members are asked to bring slides or prints from previous shoots to replenish the photo "kitty."

Charm School Entries Open

Convair San Diego women will be sprucing up for fall with the opening of a new charm course for beginners next month.

Registration on a first-come, first-served basis is open now to all SD women, wives, and daughters, said Martha Woodberry, CRA commissioner of women's activities. First class will be Tuesday (Sept. 20).

Nominal fee of $8.50 per person for the entire six-week course is payable at registration. Major part of the cost is underwritten by CRA.

This will be the first course to be held in the new Convair SD cafeteria on Pacific Highway, said Mrs. Woodberry.

Applications may be turned in to SD employee services, Plant 1 and Plant 2; Fordham St. location to Bessie Cooper, ext. 100; Rose Canyon, Virginia Cannon, ext. 2125.

SD Cafeteria Opens Doors

(Continued from Page 1)

W. E. Rickman, manager of Prophet Co. operations at Convair plants.

More than 900 persons can be accommodated in the three dining areas of the new building. In addition to the large dining room and executive dining room on the main floor, an outdoor roof-top area with canteen service will seat about 150. Access is from Overpass 1.

A "scramble" system of food service from four island service bars in the main dining room takes care of diners in the least possible time. Stainless steel has been used extensively in kitchen and serving areas with the latest innovations in kitchen equipment installed.

Minnesota Base Gets Convair-Built F-106s

Convair-built F-106s are going to another Air Force squadron in the Midwest this month.

Duluth AFB, Minn., is seeing its first F-106s with the arrival of first planes to the 11th Fighter-Interceptor Squadron. The 11th FIS is transitioning from Convair F-102s to the new jet interceptors.

Convair SD field service engineers at the Minnesota base to support F-106 operations are C. H. Marier and W. F. Eddy.

SD Man Has Lead In 'Menagerie' Play

Bill Starr (Dept. 1-65), who has been seen in every play produced at the Mission Valley Playhouse in San Diego, is cast in the male lead of the current production, "The Glass Menagerie."

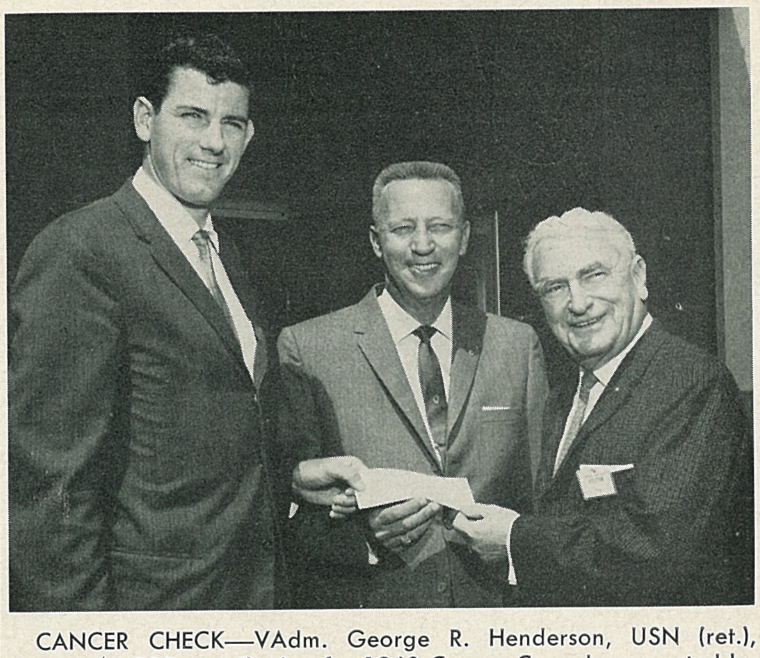
The Tennessee Williams drama, which opened last week, will continue through Aug. 28. Reservations may be made by calling CY-7-1100. Special rates are offered theater parties and clubs.

Queens Inaugurate New Jet 880 Routes

(Continued from Page 1)

higher during the first three months of operation than that experienced by other jet aircraft during the same period. Early trip cancellations and departure delays experienced during transition of Convair's new jet into service have markedly improved.

Delta took delivery on its fifth 880 on Aug. 5.



CANCER CHECK—VAdm. George R. Henderson, USN (ret.), accepts $6,000 contribution for 1960 Cancer Crusade presented by Convair SD employees through Con-Trib-Club. Making presentation are Con-Trib committee members Roy W. Dill (left) of Management Club and Harold D. Lamb (center) of International Association of Machinists.

Meetings Scheduled For SD Keg Leagues

Organization of Convair SD winter bowling leagues is progressing rapidly and most of the league organizational meetings are planned the week of Aug. 22, Jim Hayman, commissioner, said last week.

"We expect to post meeting times and places on plant bulletin boards this week and hope that keglers will be able to attend their respective league meetings," he said.

Complete bowling information can be obtained by calling Hayman, ext. 1155, Plant 1, or Mike Brooks, HO-9-8793.

THREE GIVEN NEW EDUCATION DUTIES

(Continued from Page 1)

new Rose Canyon office which is open Tuesdays and Fridays, 8:30 to 11 a.m., 11:20 a.m. to 1 p.m. An instructor at the office during these hours may be reached on ext. 2023, Rose Canyon site.

Bulletin boards have been placed throughout the Rose Canyon facility to carry notices of courses; a limited library service is available; and educational counseling offered.

Non-engineering professional education is handled through the educational office in Bldg. 15, ext. 2568. Educational services office at Plant 2 is in Bldg. 28, ext. 211 or 302.

Call Out For Donors At Next Bloodmobile

Convair San Diego blood donors from Plant 1 second shift are signing now for the next bloodmobile visit Thursday (Aug. 25).

Cards are now in the hands of all supervisors for convenience of volunteers, said K. E. Wulfemeyer of SD employee services. The bloodmobile will be located in Bldg. 32, Plant 1.

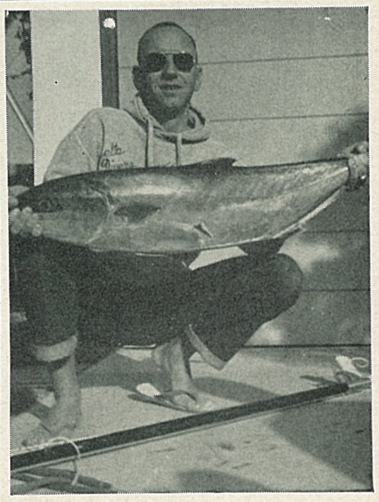
With only 59 pints collected from Plant 2 donors at the July bloodmobile visit, Convair SD's credit at the San Diego Blood Bank needs replenishing, explained Wulfemeyer. He urged all eligible persons to turn out for the August blood collection.

Fairbanks Whitney Gets Tom Lanphier

Thomas G. Lanphier Jr., former Convair vice president, has been named vice president for planning for the Fairbanks Whitney Corp.

Lanphier, who resigned his Convair position so that he could freely voice his opinion on defense policies, for the past four months has lectured, at his own expense, on the need for preparedness.

Press releases last week quoted Lanphier as saying "this is a nondefense business and my concern now is in a nondefense area."



GOOD AIM—Bob Casebolt (Dept. 6) displays 26-lb. yellowtail caught off Coronado Islands on recent Delta Divers excursion. In foreground is "hand-made" gun for hunting game fish.

Divers Will View Underwater Films

Two movies, filmed underwater, will be shown at a Convair SD Delta Divers meeting Tuesday (Aug. 23) in the Balboa Park Conference Bldg.

"Voice of the Deep" and "Underwater Champions" will be shown at the 7:30 p.m. meeting.

Next club outing scheduled for the skin divers is a boat trip to the Coronado Islands Sunday (Aug. 21).

Club members Harry Ruscigno, ext. 2396, Plant 1, and Bob Casebolt, ext. 534, Plant 1, are handling tickets for the famous "Bottomscratcher's chapino" planned Saturday (Aug. 20) at Marine St. beach in La Jolla. Tickets for the fish feed are $1.25 for adults and 75¢ for children under 12.

Ducats to 'Redhead' On Sale Tomorrow

Convair SD theater-goers will be able to purchase their reduced-price tickets to the next Star-Light Opera production tomorrow (Aug. 18) at SD employee services, both plants.

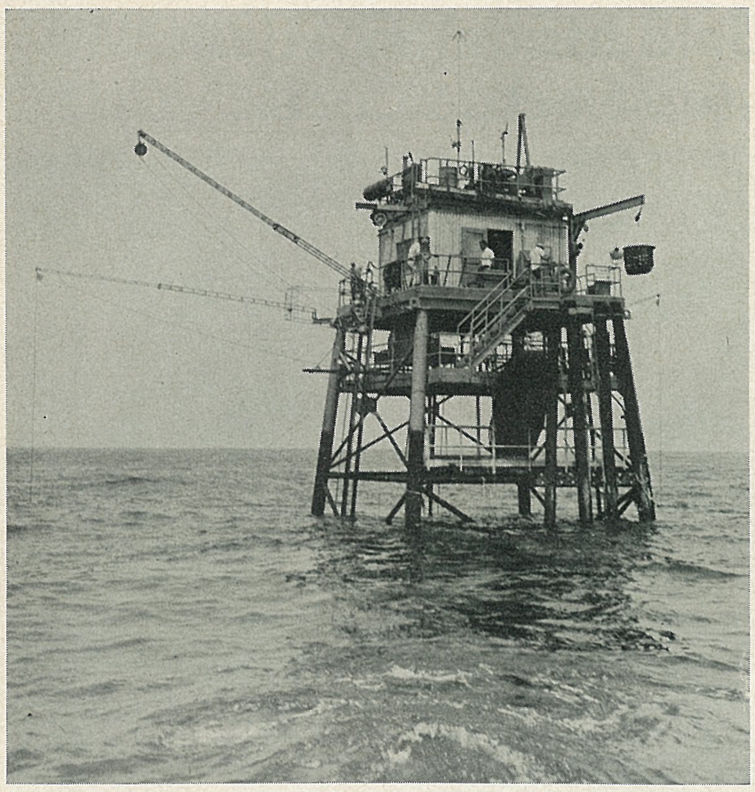
Tickets to "Redhead" will be on sale at CRA discount prices for $2.45. Seats are regularly $3.50. Convair night showing of the musical will be Aug. 28.

Last Star-Light Opera of the season will be "L'il Abner," with tickets to go on sale at Convair SD on Sept. 1. Convair night will be Sept. 11.



"You should have warned me about your Dad's attitude towards rock and roll."

Flight Test Data Techniques Used In Study of Underwater Movement



SEA STUDY—Tower half mile off San Diego's Mission Beach is center of novel underwater study. Flight test data techniques are used to record submarine waves. Telemetering equipment relays data round-the-clock to Plant 1 flight test data station.

Convair San Diego instrumentation engineers are going down to the sea to study ocean waves.

Demonstrating that the same techniques used in gathering data in space can work just as well to delve beneath the ocean's surface, SD engineers in flight test instrumentation have been keeping vigil in a lonely tower out in the Pacific Ocean off Mission Beach.

For seven days, 24 hours a day, telemetering equipment assembled at Convair SD has been flashing signals to Plant 1 flight test data station. Signals describe temperatures of internal waves — the small waves below the surface which can have a terrific impact on underwater travel.

Working in cooperation with the Naval Electronics Laboratory on Point Loma, which established the oceanographic research tower a year ago, SD engineers are showing just how such automatic data processing methods developed for Convair flight testing can facilitate accumulation of other types of information.

"Our data recording and processing methods are acquiring information five times as fast as those now in use," said H. E. Seibert, supervisor of the SD group. "The mass of ocean information which would have taken seven months to interpret is reduced in two days through Convair SD flight data station."

The NEL tower, in charge of Arthur Nelson, NEL engineer, is a 25x25-ft. corrugated tin structure standing on steel piles in 60 feet of water half a mile west of Mission Beach amusement center. Equipment and men are transported back and forth on the NEL 50-ft. utility boat from a Mission Bay Sportfishing dock. Dr. Eugene La Fond is director of NEL marine environmental studies branch which operates the tower.

The recent demonstration is an outgrowth of the current Convair SD study for the Office of Naval Research, Washington, D.C., on high speed data methods in oceanography. The one-year contract is for $130,000.

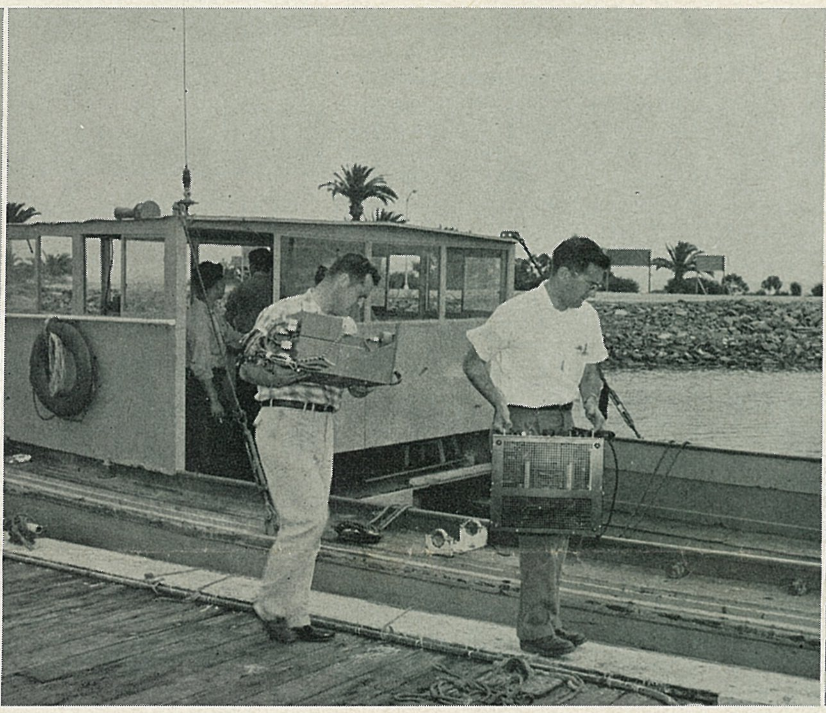
Five Convair men in Seibert's group are continuing their research which will result shortly in a design criteria guide for data acquisition methods applicable to oceanography study. They are Robert Devereux, Richard Baxter, James Lack, Michael Dutcher, and Kenneth Morgan.

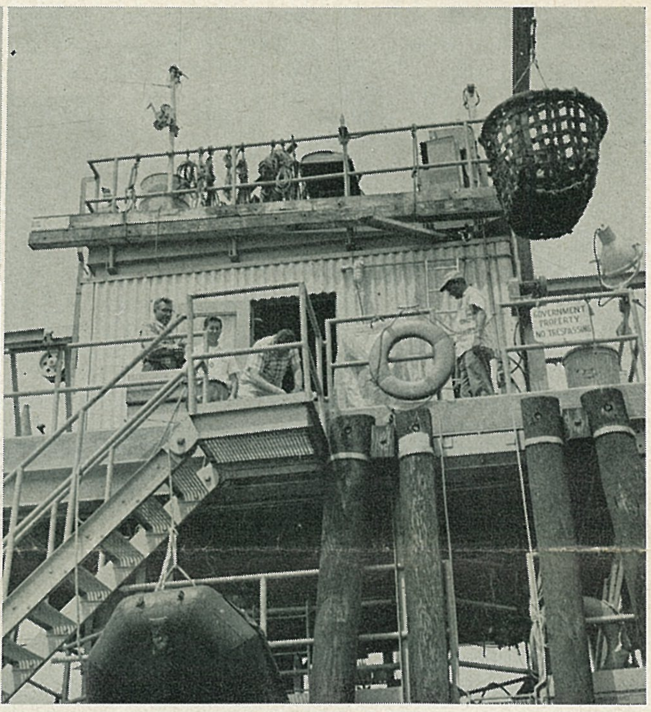
In addition, two consultants have been working closely with the Convair experts. Dr. A. J. Mallinckrodt, owner of Communications Research Laboratories, Santa Ana, Calif., advises on radio propagation and communication theory, and V. C. Smith of Chu Associates of Boston, Mass., on antennas.

"We are putting to other uses the know-how from our years of development of high speed data acquisition methods for aircraft and missile flight testing program," said V. J. Schack, senior instrumentation design group engineer.

Data acquisition methods worked out at Convair SD would go onto unmanned buoys to transmit to shore stations such data as water temperature, air temperature and humidity, barometric pressure, wind direction and speed.







SHORE TO TOWER—At left Harvey Seibert, SD engineering flight test instrumentation group engineer, stands atop Bldg. 51 at SD, alongside antenna that receives signals from sea tower. He can communicate with tower by walkie-talkie. Jack Heming and Ken Morgan of Convair SD engineering flight test instrumentation load equipment on utility boat which carries them to tower at sea. At right is closeup of tower. Basket is used to hoist equipment.

Carousel Called to Duty For Movie Explaining B-58 Navigation System

Calliopes and carousels have found a spot in the aircraft industry. Convair FW is using carnival rides to illustrate principles of centrifugal force and the Coriolis effect on navigation of the B-58 Hustler.

Engineering motion pictures section, in making an inertial navigation training film for the Air Force, was faced with the problem of visualizing these effects which make navigation of aircraft a complex problem. They came up with their answer on the grounds of the Carswell AFB Carnival.



ILLUSTRATIVE—To show effects of centrifugal force and gravity on B-58 navigation, Convair FW cameramen prepare to photograph carnival swings, swung out in motion round-and-round.

To illustrate the effects of centrifugal (outward) force, they used a swing ride. As the ride turns round, suspended chairs swing out and away from the center illustrating centrifugal force.

But the farther a body is from the axis of rotation, the greater the centrifugal force. To show this, photographers left one swing on the outside of the circle and put another farther inside on a line to the center. Because of the greater force on the outside swing, its angle of deflection was greater than that of the one nearer the center.

The merry-go-round was used to show the Coriolis effect on navigation. It's due to the earth's spin which causes moving bodies to seem to be deflected to the right in the northern hemisphere and to the left in the southern.

To illustrate, photographers placed two Carswell airmen on the carousel, one near the center and one on the outside of the ride. As the ride turned the two men played "catch."

The inside man first pitched a softball directly toward the other. It was a complete miss because the carousel's spin had taken the catcher past the ball before he could catch it.

But when the pitcher aimed a little ahead of his target, the other man made a perfect catch as the carousel moved him up to the ball. This Coriolis effect is the reason an airplane can't aim "straight" for its destination.

AF Cadets Visiting Hamilton AFB Get Orientation Rides in TF-102s

Air Force Academy cadets climaxed a recent visit to Hamilton AFB, Calif., with rides in Convair TF-102s, as well as other Century series aircraft.

For the fourth year Hamilton AFB hosted 600 cadets during orientation which took groups to Nike sites, ground-controlled intercept sites, and other installations pertinent to their training.

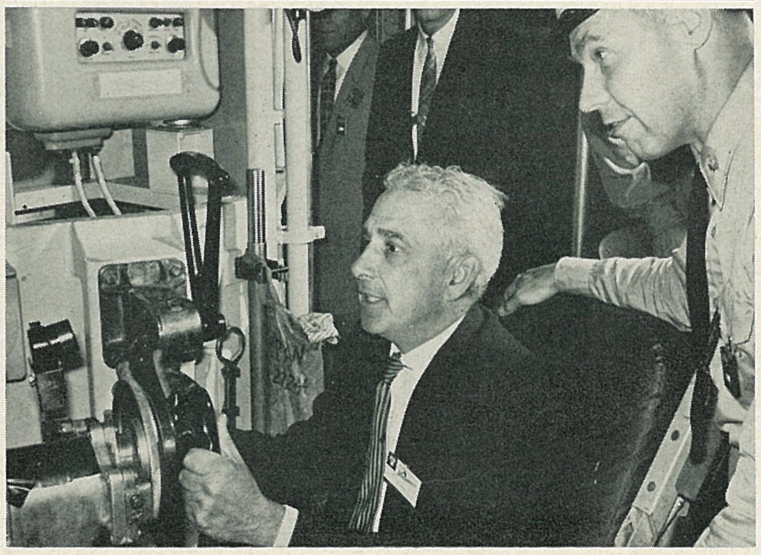
"Reliability of the TF-102 was again demonstrated during this exercise," reported R. L. Costan, Convair SD service parts logistic support representative. "All TF-102 aircraft were flown two or three missions a day with minimum maintenance."

Costan assisted crews in selection, identification, and procurement of spares and Robert Cormany, SD field services rep, contributed technical assistance to keep the Convair planes in readiness for each mission.

Veteran SD Engineer George Hansen Dies

George E. Hansen, a Convair veteran of 18½ years, collapsed and died at his desk Aug. 9. He was a senior design engineer in the modification section of engineering, Convair SD.

He is survived by his wife, Antionette, and two daughters, Marilyn and Barbara.



AT THE HELM—During recent visit aboard Polaris-firing nuclear submarine USS Patrick Henry, Convair President J. V. Naish took airplane-like controls under direction of Lt. Cdr. Charles D. Grojean, ship's executive officer.



HOMEWARD BOUND—"Boat pool" members at Convair FW head home across Lake Worth after day's work. W. W. Stephenson, center, relaxes with Convairiety, while Neal Laverty tries for a "quick catch." Bill Rowden's attentions are focused ahead, as it's his day to "drive."

Over the Waves

'Boat Poolers' Dodge FW Traffic; Often Fish en Route to Work

Thirty if by land, one if by sea. That's transportation time—in minutes—for three Convair FW employees who have joined a "boat pool" to get to work from their homes on the shores of Lake Worth.

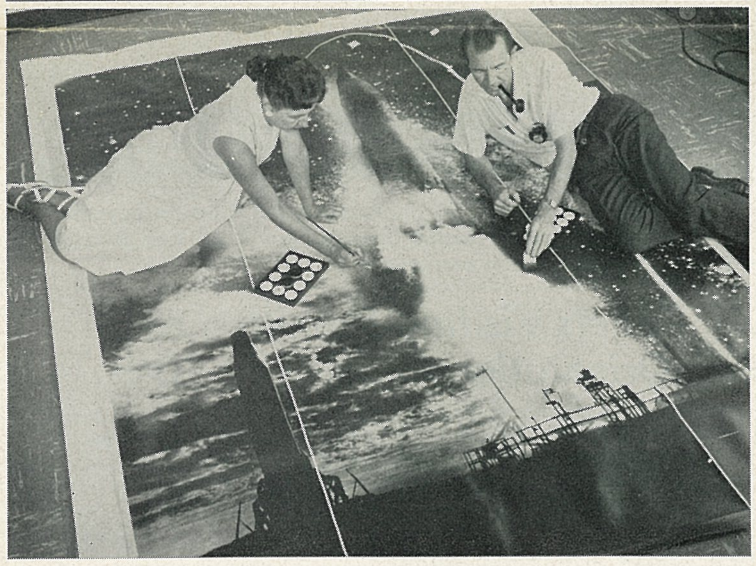
It takes a little over a minute for the threesome to skim across the lake from their neighboring docks to a "private" dock they have built on the Convair side. The gate is just another minute's walk away.

The men, W. W. Stephenson of Dept. 29-2, Neal S. Laverty of Dept. 29-3, and Bill Rowden of Dept. 15-5, teamed up with their three boats in January. They estimate they've saved about 360 collective transportation hours since then by "boating" to work, rather than driving the crowded Jacksboro Highway-Highway 183 route.

"But we don't always make such good time," Stephenson admits. It seems the men are dedicated fishermen and water skiers, and they've been known to make the minute trip in an hour!

Laverty says they have a fish basket under the bow where morning catches are kept during the day. Of course, evening catches go straight to the cleaning board!

Stormy weather? It does pose a small problem for the boat poolers. "But we just roll up our pants legs and go on," Rowden smiled.



FINISHING TOUCHES—Still photo employees Dawne Daynes and Tom Sutton touch up large photomural recently prepared at Astronautics. Four pictures were printed to appear as one in finished product.

Photos of Atlas Missiles Joined To Form Wall-Size Photomural

Four separate photographs taken at different times and places are combined in one large photomural recently prepared by Astronautics' still photo section (Dept. 120-5).



Several steps went into the preparation of the finished 6x10-ft. print.

First, four photographs were carefully printed to appear as one. One picture is the fiery trail blazed by missile 10-B as it soared from AFMTC. Another shows the AFMTC launching of Atlas 56-D, and a third captures 12-D at Vandenberg AFB.

The missile photos are superimposed on a telescopic view of the constellation Andromeda obtained from Palomar Observatory.

The first composite print was 11 by 14 inches in size. This was photographed to provide an 8 by 10-inch negative from which the final enlargement was made by projecting the image on two large sheets of sensitized paper. For this, the sheets were hung on the lab wall side by side with a slight overlap, just as wallpaper is hung.

As a final step, before display, the two parts of the print were patched and assembled, and tiny defects were painted out by hand.

There's Real Gold Inside an Atlas; Thin Layer Plates Electric Circuit

Convair's Atlas missile has a heart of gold!

Deep down in the electronic "organs," life center of every missile, this precious metal has an unglamorous but extremely useful task.

Astronautics' manufacturing processing (Dept. 733) uses gold to plate certain contact points on electronic printed circuits.

"Gold is used here because of its high corrosion resistance," says J. A. Villian, processing foreman. "It doesn't tarnish as easily as more common metals, and is an excellent conductor of electricity."

In other electronic uses, he explained, it is used to shield parts against certain radio frequencies.

Many steps are necessary before the final layer of gold, only .0002th of an inch thick, is plated on parts of the circuit board.

The complex board starts as what appears to be a thin copper plate about 8 by 10 inches in size. A number of small holes puncture it in an apparently random pattern. Actually, this is a sheet of epoxy resin with a thin copper "skin" laminated to either side. The holes are attachment points, precision drilled where circuit elements will be added later.

First the holes need a copper coat around their inside diameters to insure good electrical contact when other parts are soldered in place. This is accomplished by "emersion plating," a process which sends the board through a series of chemical baths where it collects a film of copper.

W. H. "Shorty" Coppage, a veteran of 20 years in industrial plating, attends to this task, assisted by C. A. Howard and other platers.

When the holes are lined to the proper thickness, the circuit is masked off on the board with a blue-black "resist coating" known as "KPR."

"This shields the board during the next steps in processing," explains R. D. Arnold, assistant foreman.

Now the circuit is electroplated with copper and solder.

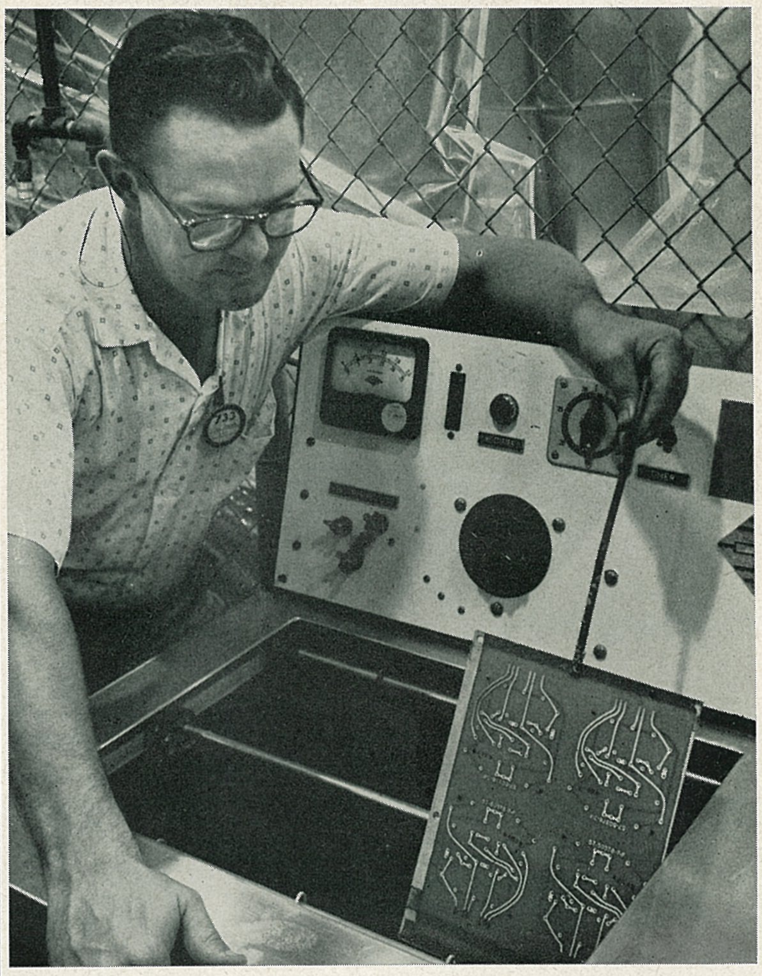
Then the KPR is removed and an acid bath cuts away excess laminate from the board. The circuit, outlined now in solder-covered copper, remains alone on the semi-transparent epoxy.

In other industries, the board would be ready for use at this point, but not so in Astronautics' missile factory.

In another masking and electroplating process, the board is placed in a solution of potassium cyanide in which tiny gold flakes are suspended. By electrolysis, the particles are attracted to form a gleaming film over contact points at one edge of the board.

When other electronic parts have been soldered in place, the whole board can be slipped into position almost as easily as a home appliance is plugged into a socket.

The missile's "heart of gold" will insure effective and lasting contact.



GOLDEN TOUCH—Chester Howard, Astro Dept. 733, examines printed electronic circuit board as it comes from manufacturing processing's "jet plater." Terminal ends of circuit pattern at upper edge of board receive thin plating of gold to insure good electrical contact upon assembly.

Classes Conducted In Home Swim Pools

That "old swimming hole" is getting a new twist these days for San Diego youngsters—with the help of three Convair SD Dept. 25 men.

H. C. Wilson, W. T. Toon and Howard Apple are turning over their home swimming pools to invading groups of children, six years old and up, three days each week for three weeks.

The Convair families let youngsters use pools in cooperation with a swim instruction course of the Red Cross.

"Almost 30 children are in each class, and it looks like a major invasion pouring into our backyard," Wilson states, "but it's a pleasure to see them gain confidence and turn into proficient swimmers."

General Dynamics Specialists To Teach Extension Courses

Twenty-nine General Dynamics Corporation specialists will be on the faculty of University of California Extension's fall program.

Teaching courses in mathematics, engineering, business, physics, and languages when classes start Sept. 19 in San Diego will be ten Convair San Diego men, nine from Astronautics, eight from General Atomic and two from Stromberg-Carlson.

Of special interest to General Dynamics people in the San Diego area are new courses: Micro-Electronic Engineering, moderated by Dr. David B. Medved, Convair SD staff scientist; Materials for Missiles and Spacecraft, James F. Watson, Astro senior research engineer, coordinator; and Aerospace Physics, taught by Dr. Alex E. S. Green, Convair SD chief of physics.

Medved will also coordinate a seminar in Selected Topics in Solid State Theory and Devices.

Others instructing will be—from Convair SD: Maxwell Frank, Henry Girouard, Lester Haar, James B. Herreshoff, Leo Lapidus, James P. Mitchell, Eugene J. Putzer, Herbert T. Wexler. Astro men are Raymond A. Ezekiel, James F. Haskins, K. L. Montgomery, W. D. Montgomery, N. T. Norden, Conway C. Sams, Ernest Wade, Bruno F. W. Witte.

General Atomic instructors are James H. Alexander, T. E. Firle, C. O. Peinado, R. W. Preisendorfer, Carlo Riparbelli, Ward C. Sangren, Raymond E. Shanstrom, and Kon Worth.

Stromberg-Carlson men are William C. Slagle and Herman W. Volberg.

Catalogues and information may be had from University Extension office, 1221 Fourth Ave., SD, BE-2-7321.

Esenwein Chairman Of Technical Meet

August C. Esenwein, Convair executive vice president, served as guest chairman of the recent 1960 Technical Symposium of the Society of Photographic Instrumentation Engineers (SPIE) in Los Angeles.

SPIE members are primarily professional photographic instrumentation engineers, organized to advance their profession as a science of observation and recording.

Guest of honor and principal speaker was Lt. Gen. C. S. Irvine, USAF (Ret.).

W. R. Monroe, Convair SD manager of reliability, moderated a seminar on the "Consideration of Photo-Instrumentation System Reliability" at the symposium held Aug. 1 through 4 in the Ambassador Hotel, Los Angeles.



"Oh, gee, fellows . . . Just what I needed . . . tools or something!"

NEWS FROM OTHER DYNAMICS DIVISIONS

General Dynamics Corporation, created in April, 1952, as successor to Electric Boat Company, is composed of seven divisions and a Canadian subsidiary, Canadair Limited, of Montreal, airframe builders. The divisions are:

Convair, head offices at San Diego, Calif., aircraft, missiles, and space systems.

Electric Boat of Groton, Conn., submarines.

Stromberg-Carlson, of Rochester, N. Y., telecommunications, electronic equipment.

Liquid Carbonic of Chicago, Ill., carbon dioxide producer, industrial and medical gases.

General Atomic of San Diego, Calif., nuclear research, development, production.

Electro Dynamic of Bayonne, N. J., electric motors, generators.

Material Service Division, Chicago, Ill., building materials, concrete products and coal.

* * *

General Dynamics Executive VPs Named to Board of Directors

NEW YORK CITY—The election of C. Rhoades MacBride and W. P. Gullander to the board of directors of General Dynamics Corporation has been announced by Frank Pace Jr., board chairman. They are the two executive vice presidents of the corporation.

MacBride joined General Dynamics in January, 1958, as vice president for operations. He subsequently was named a senior vice president and on April 1, 1960, became executive vice president. A native of Chicago, he previously had been a partner in the business consulting firm of Robert Heller and Associates.

Gullander joined General Dynamics on April 1, 1960, as executive vice president. A native of Big Rapids, Mich., he had been with the Weyerhaeuser Co. of Tacoma, Wash., as vice president for finance and previously had served in various capacities with the General Electric Co.

Consoles For Project Mercury Shipped by Stromberg-Carlson

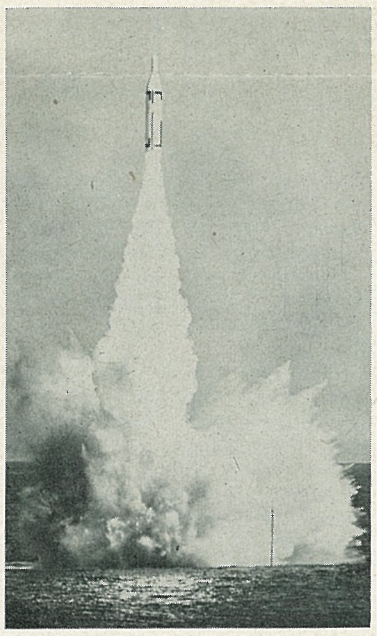
SAN DIEGO—Shipment of consoles, displays and control equipment has been made by Stromberg-Carlson San Diego for Project Mercury, America's first attempt to orbit an astronaut in space.

Stromberg-Carlson, with headquarters in Rochester, New York, is a division of the General Dynamics Corporation.

Stromberg-Carlson San Diego, under subcontract from Bell Telephone Laboratories, is responsible for design, fabrication and installation of equipment within the vital control center for Project Mercury. Equipment will enable key individuals, referred to as the flight controller team, to monitor data about the astronaut, the capsule, and its flight.

The various components have been delivered to Cape Canaveral where the control center will be located and to the Bermuda range station. Among these are consoles containing charts and meters to display data, switches to activate systems which control the flight, and telephone intercommunications systems.

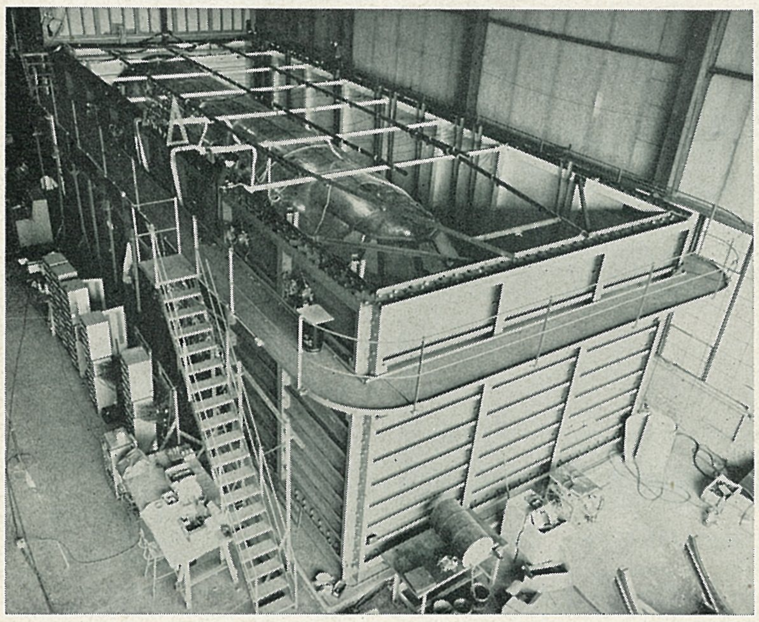
Also, Stromberg-Carlson San Diego has designed a large global map which will show the manned capsule's orbiting path, location of the remote stations and displays giving critical data about each remote station.



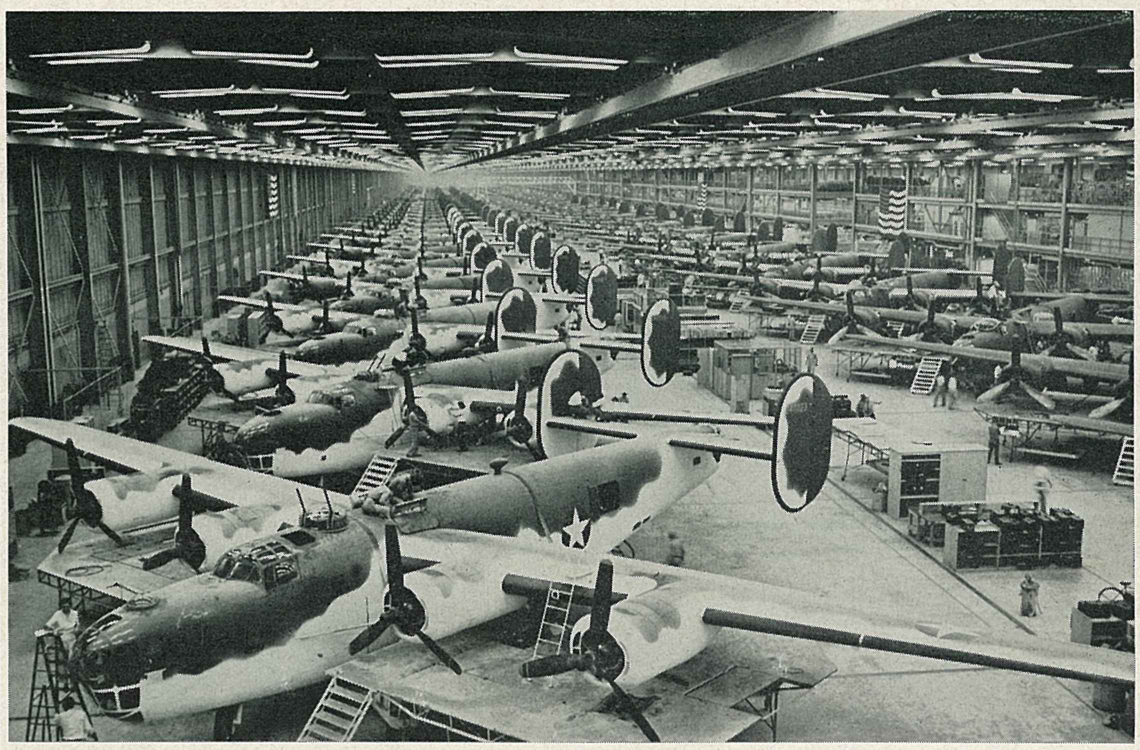
OUT OF DEEP—Polaris missile soars skyward after launching from nuclear submarine USS George Washington, built by Electric Boat Division. Washington's whip antenna, raised to show vessel's location, is visible at right.

FORTESCUE NAMED TO EUROPE POST

ZURICH—Dr. Peter Fortescue has been appointed chief research and development engineer of the newly organized General Atomic Europe (**Convairiety**, July 6). Dr. Fortescue, who is chief research and development engineer of General Atomic Division in San Diego, Calif., will also continue to act in that capacity.



TANK TESTING—At Canadair engineers are preparing for static and fatigue testing of "Canadair Forty Four" fuselage in water tank. Front section, seen here, has been completely instrumented for measurement of loads, deflections, stress levels.



CONVAIR FW IN '43—Fort Worth's mile-long plant was packed with B-24 Liberators and C-87 Liberator Express transports during World War II days. Employment reached peak in November, 1943.

More Than 3,000 Multi-Engine Aircraft Produced by Fort Worth During War

(This is installment No. 41 in continuing history of Convair.)

A skeleton administrative staff trained at San Diego had returned to Texas in December, 1941, assigned to the new Fort Worth plant, and the factory officially opened April 17, 1942, with a backlog of $158 million. This was for assembly of 600 B-24D bombers that Ford was to ship as knock-downs from Willow Run. Since the Ford plant was not yet in production it was arranged for San Diego to send components for the 150 bombers.

The first Liberator assembled at Fort Worth was accepted by the Air Force on May 1, 100 days ahead of schedule. Thereafter, B-24s and C-87s (a transport modification of the Liberator) poured off the assembly line for nearly three years. Production exceeded 200 planes a month in the winter of 1943 and employment reached a peak of 30,574 in November of that year.

In August, 1942, the Texas division received a historic assignment, responsibility for detailed design and construction of two XB-36 intercontinental bombers. (Preliminary design and mockup had been completed at San Diego.) The B-36 project retained low priority as long as production emphasis remained on current combat types, however. The prototype was nearing completion when the war ended.

Fort Worth's second collateral contract was for production of the B-32 Dominator, a heavy four-engine bomber fostered by the Air Force as a counterpart of the Boeing B-29. Production began in January, 1944, and the first B-32 was accepted by the Air Force Sept. 15, 1944. The following April the first 15 planes were assigned to Western Pacific duty. The Pacific campaign was progressing so favorably, however, that the B-32 program was cut back heavily in May.

Fort Worth had produced more than 3,000 multi-engine aircraft when termination orders on the last wartime contracts were received Aug. 15, 1945. By December, the payroll had shrunk to 6,200 workers, engaged principally in the XB-36 program.

ASW Planners See Tullibee

GROTON — General Dynamics Corporation's Anti-Submarine Warfare (ASW) Planning and Coordinating Committee held its quarterly meeting Aug. 4 at Electric Boat Division.

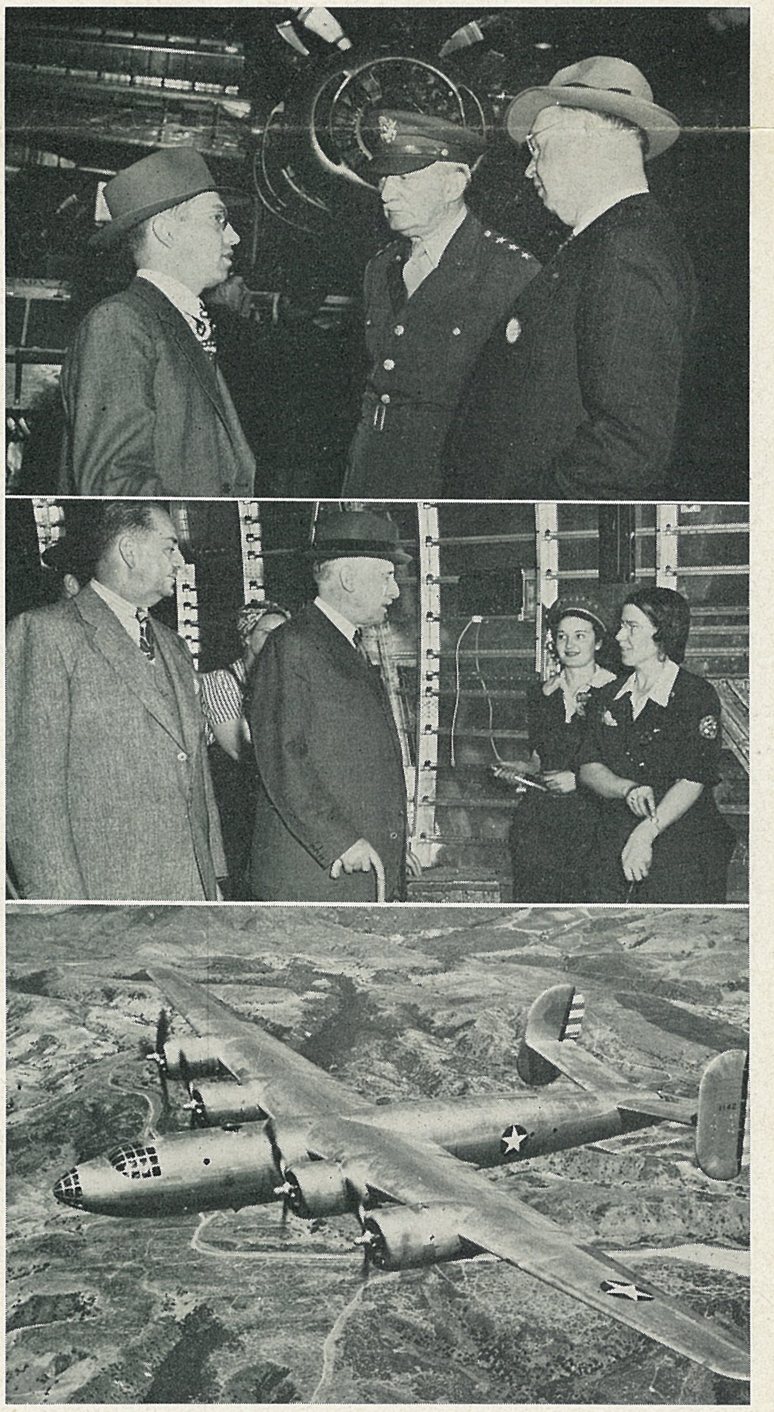
The group visited the atomic submarine shipyard's wetdock area and went aboard the nuclear-powered Tullibee, launched here April 27 and representing the latest in the Navy's arsenal of anti-submarine warfare weapons.

Under the chairmanship of Lawrence B. Richardson, Dynamics senior vice president for engineering, the ASW group directs the corporation's principal efforts in the field of anti-submarine warfare.

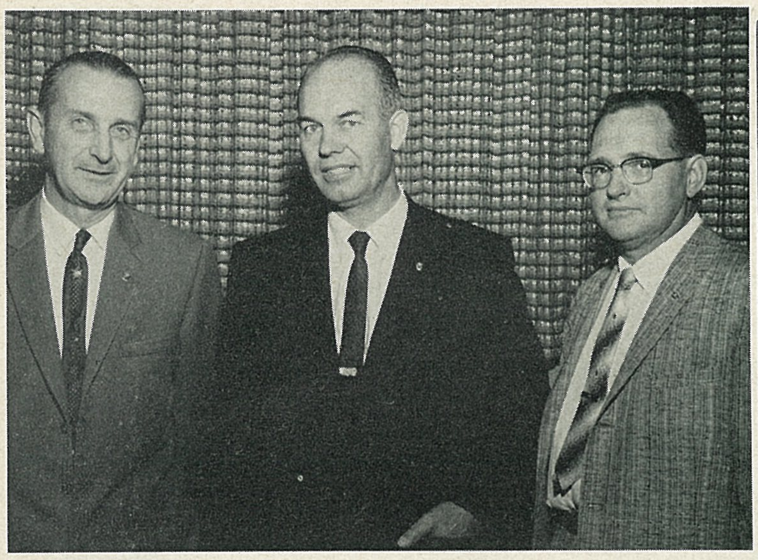
'Compressed Speech' System Ordered

ROCHESTER — Stromberg-Carlson Division has received a $390,000 contract from Rome Air Development Center of the U. S. Air Research and Development Command for development of a completely transistorized multi-channel coder-multiplexer communication system.

The function of such a system is to provide several voice communication channels in the same frequency bandwidth normally required for one voice channel, by the use of speech compression techniques.



WAR DAYS—In top photo, taken at San Diego, Lt. Gen. William S. Knudsen, director of production for War Department, confers with Harry Woodhead, right, then president of Convair, and C. W. Perelle, left, then vice president-manufacturing. In center picture Secretary of War H. L. Stinson tours SD plant with I. M. Laddon, then Consolidated Vultee's executive vice president. Below is only one of its kind built, pressurized XB-32 with dual rudders. Later pressurization was abandoned to reduce weight and plane got single tail.



REWARDED—Latest at Convair SD to wear 25-year service emblems are Frank R. Field (left), Dept. 14-0, and Leo R. Robbins (right), Dept. 400-3, shown here with R. C. Loomis, Convair vice president and manager of SD operating division, who made presentations.

Log Book Entries

Service Emblems

SAN DIEGO

Service emblems due during the period Aug. 1 through Aug. 15.

Twenty-five-year: Dept. 400-3, L. R. Robbins.

Twenty-year: Dept. 6, E. P. Chase, B. L. Van Tuyl; Dept. 7-40, R. L. Hurst; Dept. 25-1, W. W. Goodman; Dept. 31, R. E. Bowman, Tomas Castro, S. G. Hughes, L. M. McGinley, R. W. Menzie, R. A. Richardson, P. H. Rudolph, G. C. Zimmerman.

Dept. 68-0, E. F. Strong; Dept. 137, W. M. Bender; Dept. 146, J. F. Ames; Dept. 171, L. W. Putney, Dept. 206, Henry Zilz; Dept. 400-6, W. H. Jones; Dept. 401-5, E. F. Liegler.

Fifteen-year: Dept. 3-8, G. W. Leesch; Dept. 6-40, C. F. Kraus; Dept. 25, Bonnie G. Wood, L. S. Young; Dept. 44-1, J. G. Folchi; Dept. 170-0, L. S. Butler; Dept. 216, Myrtle S. Nevills; Dept. 401-5, G. W. Burgess.

Ten-year: Dept. 1-14, A. C. Esenwein; Dept. 3, Molly B. Dowell, Carlo DiMaggio, J. B. Heringhaus, S. H. Imdieke, Michael Kotun, E. H. Stone, W. T. Stoye; Dept. 6, J. E. Burgeson, A. B. Conard, A. C. Nelson, R. C. Schaefer; Dept. 7, M. L. Cornish, Peter Goetz Jr., M. J. Lattuca.

Dept. 14, W. R. Foster, J. A. Moore, J. E. Rath, Lila G. Taylor, L. F. Vought; Dept. 15, June E. Goldsmith, R. L. Hart, J. I. Laird; Dept. 21, M. R. Castillo, Rebecca C. Dodes, D. W. Monahan, O. L. Waller.

Dept. 25, Rush Cravens, D. E. Findlay, William Gillikin, J. A. Master, R. E. Nelson, L. O. Scott; Dept. 31, J. N. Comstock, E. J. Dauley, E. L. Gullette, J. C. Kennedy, H. T. West Jr.; Dept. 34, W. S. Heller, J. R. Taliaferro.

Dept. 44, Margaret S. Monkman, B. L. Moon, Irene M. Peters, Ruth M. Price, Kathleen S. Woods; Dept. 92-0, J. W. Schiltges; Dept. 95-3, C. M. Gudmundson; Dept. 98-5, R. P. Herrmann.

Dept. 101, E. A. Buckman, Benjiman McMullen; Dept. 102, H. G. Elrick Jr., E. S. Moghabghab; Dept. 115, K. C. Brown; Dept. 116, Marjorie B. Grimm; Dept. 117, P. B. Capelle; Dept. 120, O. W. Halliwill, Daniel Ostel.

Dept. 133, J. E. Bender, L. C. Berner, J. W. Carrico, P. L. Hawks; Dept. 135, M. H. Fulgham, D. E. Paulson; Dept. 136, Mercedes M. McCloskey, A. F. Ramirez; Dept. 138, C. M. Morris.

Dept. 142, V. N. Campise, Alfred Daniels; Dept. 143, T. K. Lou; Dept. 144, I. G. Pursley; Dept. 145, J. C. Danner, Henry Hampton Jr., D. A. Laferriere, A. T. Patterson, W. J. Shadduck, W. B. Young; Dept. 146, R. K. Peters; Dept. 148, J. R. Ferson.

Dept. 160, E. W. Andrews, Alfredo Benadides, L. W. Steen; Dept. 188, L. E. Austin, E. L. Bacon, R. D. Buchol, C. J. Lambie, J. E. Slean; Dept. 190-2, E. D. Green; Dept. 192, R. C. Bouldin, G. R. Higgs, Bernice K. Kelly, O. A. Koch, Mildred M. Lowry, Ida S. Mitchell.

Dept. 204, Louis Morales, G. C. Roberts; Dept. 215, Sarah W. Dragoo; Dept. 216, Mary C. B. DiPace, Myrtle C. Green; Dept. 218, Fred Chavez, J. D. Collins; Dept. 249, M. F. Winchester Jr.

Dept. 266, W. E. Carriker, A. O. Sanchez; Dept. 271, Mike Landrum, James McCormick; Dept. 288, J. W. Bell, R. J. McLeod; Dept. 292, Bernard Bourdon, F. E. Carranza, Teresa C. DeBolt, H. H. Horner, R. R. Oglesby, C. M. White; Dept. 400-1, L. C. Michenfelder, H. G. Pedrini; Dept. 401, G. W. Cooper, T. C. Hall, W. O. Pfau, F. J. Stefance.

PALMDALE

Twenty-year: Dept. 321-1, W. R. Carey.

Fifteen-year: Dept. 321-1, S. P. Brower.

Ten-year: Dept. 321, Anthony Duda, R. C. Thomas.

HOLLOMAN AFB

Twenty-year: Dept. 313-5, Frank Brown.

Ten-year: Dept. 313-5, L. M. Padilla.

Retirements

SAN DIEGO

ANDREWS—James D., Dept. 407. Seniority date May 7, 1947, retirement effective Aug. 5, 1960.

CUTHBERT—Cecil, Dept. 44-1. Seniority date Jan 1, 1957, retirement effective Jan. 22, 1960.

KERN—David R., Dept. 197-1. Seniority date June 23, 1950, retirement effective July 15, 1960.

MULROY—John J., Dept. 292-2. Seniority date Nov. 3, 1924, retirement effective July 29, 1960.

SCHROLLER—Anthony W., Dept. 115. Seniority date April 30, 1952, retirement effective July 29, 1960.

SMITH—John G., Dept. 31. Seniority date Jan. 21, 1955, retirement effective July 25, 1960.

SOLEIDA—Joseph J., Dept. 401-4. Seniority date Jan. 20, 1958, retirement effective Feb. 26, 1960.

SUTTON—Hazen A., Dept. 101. Seniority date May 4, 1950, retirement effective July 25, 1960.

VALENTINE—John C., Dept. 215. Seniority date June 6, 1952, retirement effective Aug. 4, 1960.

PALMDALE

GEIER—Matthew H., Dept. 324-4. Seniority date Dec. 27, 1955, retirement effective June 24, 1960.

Promotions

SAN DIEGO

Promotions to or within supervision effective Aug. 1.

Dept. 34-5, Material Procurement: To buying supervisor, E. L. Dierker.

Dept. 119, Metal Bond Fabrication and Assembly: To asst. foreman, L. E. Anderson.

Dept. 148, Jet Transport Major Mate: To asst. foreman, O. L. Huffman.

Dept. 288-8, Inspection, Plant 2: To inspection asst. supervisor, B. W. Paul.

PALMDALE

Dept. 326-0, Liaison Engineering: To chief of liaison-Palmdale, J. L. Carton Jr.

Personals

SAN DIEGO

We wish to thank the Convair friends, particularly Dept. 101 employees, and the wing air test crew, for the beautiful flowers sent at the passing of R. W. Winkler.

Mrs. R. W. Winkler and family.

* * *

Dear Convair—The children and I want to thank you for the lovely basket of flowers you sent in Ed's memory.

Mrs. Edward F. Jones.

* * *

In memory of our beloved brother and husband, J. P. Espinoza, who died July 19 aboard destroyer USS Ammen, we wish to thank our many Convair friends for their thoughtfulness and understanding.

G. S. Espinoza, Dept. 201
Mrs. J. P. Espinoza

Births

SAN DIEGO

FORNATARO—Son, Roland James Jr., 7 lbs., 14 oz., born July 19 to Mr. and Mrs. R. J. Fornataro, Dept. 6-51.

LUTNICK — Daughter, Jacqueline Elaine, 8 lbs., 5 oz., born July 28 to Mr. and Mrs. J. F. Lutnick, Dept. 6-41.

PALMDALE

ROOKS—Daughter, Paula Darlene, 8 lbs., 3 oz., born July 29 to Mr. and Mrs. W. L. Rooks, Dept. 321-1.

Deaths

SAN DIEGO

DODGE—Perryman, Dept. 99. Died Aug. 3. Survived by wife, Maisie; brother, Harold W. Dodge.

HANSEN—George E., Dept. 6. Died Aug. 9. Survived by wife, Antionette; two daughters, Marilyn and Barbara.

HERBERT—Chester L., Dept. 232. Died Aug. 8. Survived by wife, Marjorie; three brothers and one sister.

SD Hoedowners Set Party Night Luau

Hoedowners from Convair SD will combine a luau with their regular party night Thursday (Aug. 27) in the University Heights Community Center, 4044 Idaho St.

A potluck dinner at 6:30 p.m. will launch the event, squares will form at 8 p.m. Club caller Don Browne and guest callers will be on hand.

Next square dance class for beginners is scheduled to start about the middle of September, Maury Scholz, CRA commissioner, reports.

Ski Club Planning Salton Sea Outing

Depending on show of interest Convair SD Water Ski Club will schedule a Labor Day weekend ski trip to Salton Sea.

Persons interested in making the trip are asked to contact Herb Wexler, club commodore, BR-8-3780. Information on club-sponsored slalom practices can also be obtained.

Weekend ski sessions are continuing in Mission Bay.

Badminton Tourney Set This Saturday

Only two days remain for SD enthusiasts to file entries in a CRA-sponsored badminton tournament scheduled to start at 10 a.m. this Saturday (Aug. 20) in the Balboa Park Federal Bldg.

Tourney brackets will depend on number of entries but A, B, B consolation, novice, men's doubles, and special women's novice division as well as possible mixed doubles are presently planned.

Deadline for entries is 4:30 p.m. Friday (Aug. 19). Contact Tom Richardson, commissioner, ext. 2301.

Jeep Club Will Map Plans for Cavalcade At Meeting Tonight

Quarterly meeting of the Convair SD Jeep Club and the San Diego Ridgerunners will be held at 8 p.m. tonight (Aug. 17) in the Civil Defense Bldg., Gillespie Field.

A planning committee for the group's annual desert cavalcade will be selected at the session.

Art Thomas, club spokesman, reports 22 members made a 250-mile night trek Aug. 6-7 which was conducted as a Civil Air Patrol rescue training mission. When daylight broke, CAP Para-Medics parachuted supplies and men to the base camp.

Interested Convair SD persons who hold private pilot's licenses can obtain information concerning the 97th CAP squadron by contacting Thomas at HI-8-1602, after 5 p.m., weekdays.

'DE-LIARS' RUN SET FOR MOTORCYCLISTS

A "De-Liars" run Aug. 28 is next on the agenda of Astro CRA Motorcycle Club. Entry fee is $1 for the event, which is open to all Convair employees.

The club's monthly meeting was held Aug. 3 at Jackson's Club House. San Diego Police Officer R. L. Walker addressed the group on traffic and motorcycle safety, stressing "defensive driving."

An overnight camping run is planned for the weekend of Sept. 24, with a competition road run slated.

This will be climaxed by trophy awards at the camp area where the evening meal will be served. Entry fee is $1.50.

Discount Offered For 'Gypsy Baron'

Discount exchange tickets for the youth musical "Gypsy Baron" presented by the City Park and Recreation Department under direction of Maria Fielding are available at SD employee services, Plants 1 and 2.

Performances will be Aug. 19 and 20 at 8:30 p.m. in the Balboa Park Bowl. With exchange coupon, admission is 50¢.

Vultee Field Reunion Set

Thirteenth annual reunion of former Vultee Field employees is planned Sept. 17 at the Royal Hawaiian Hotel in Los Angeles, starting at 4 p.m.

For the past 12 years the group has held an annual meeting and social get-together. Wes Magnuson and Earl Williams of Astro are assisting this year in setting up the affair.

"This is a rather unusual organization," Magnuson said. "We have no dues, no charter, no nothing. We just get together, talk over old days and enjoy ourselves."

Notices have gone out to all former Vultee Field employees known to the group throughout the United States. Those who have not received invitations may get further information from Magnuson at CY-7-3701, ext. 109.

Trap, Skeet Shoot Slated on Aug. 28 For SD-Astro Folk

A fine selection of merchandise prizes will be awarded Convair SD and Astro marksmen at a pre-hunting season trap and skeet shoot Sunday (Aug. 28).

"We have selected prizes to please all tastes and expect a good turnout at the shoot which will give hunters an opportunity to sight in for the opening of the dove season," Jack Swank, SD commissioner, reported.

The shoot will start at 9 a.m. at the CRA Range, Gillespie Field. All SD and Astro gun enthusiasts, and their friends, are invited to participate.

Shooters will be able to enter events of their choice. Special brackets are planned for beginners and women.

Toastmasters Plan Ladies' Night Dinner

Convair Toastmasters and their ladies will join members and guests of the Naval Electronics Lab club at a pool-side dinner Friday (Aug. 19) at Rancho Presidio Hotel in Mission Valley.

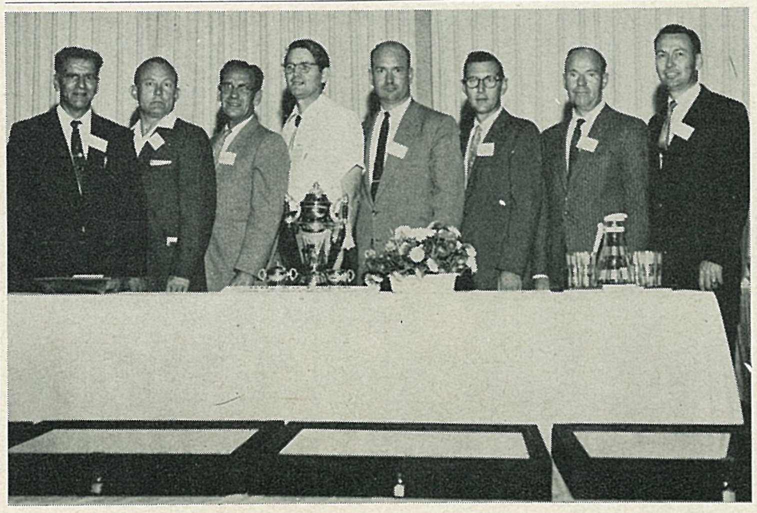
Anyone wishing information about the 7 p.m. affair is urged to call Duane Johnson, ext. 1320, SD Plant 1.

Honors went to Wayne Dickenson of Hospitality Club and William Duerkson of Dept. 6 at the Aug. 8 meeting in the patio of Balboa Park's House of Pacific Relations. Dickenson was judged best speaker and Duerkson took best table topic award.

Frans Ter Horst outlined development and purpose of the House of Pacific Relations which he directs.

SWING SHIFT KEG LEAGUE ORGANIZES

Astro swing shift bowlers are being sought for a league at Parkway Bowl. Play will open in mid-September, with the league slated to roll Friday nights (1:25 a.m., Saturdays).



COINARAMA—Members of SD and Astro Coin Clubs played important part organizing and staging annual Coinarama in U. S. Grant Hotel this month. From left are Ray Toy (Dept. 573-3, Astro), Al Baber (Dept. 8, SD), R. A. McCracken (Dept. 192, SD), president of SD Coin Club; Tom McDaniel (Dept. 401, SD), J. J. Garside (Dept. 595, Astro), C. R. Martin (Dept. 771, Astro), president of Astro Coineers; Laudie Rieder (Dept. 6, SD), Vince Bacon (Dept. 6, SD).



UP AND OVER—Brad White, son of Convair SD's E. F. White, registers mixed emotions as he climbs skyward, then plunges down on roller coaster at Belmont Park. White Senior sat two seats in front of son to snap photos. Sequence starts at bottom. Series won recent Convair SD Camera Club award.

Partner's Best Ball Deadline Tomorrow

Golfers from Convair SD and Astro will be able to make last-minute reservations tomorrow (Aug. 18) for a Partner's Best Ball Convair Golf Club tournament at Coronado this weekend (Aug. 20-21).

All entries can be made with Alma, ext. 552, Plant 2, until 4 p.m. Bob Lea, Golf Club president, will take final entries between 4 and 5 p.m. at ext. 409 or 484, Plant 2.

CRA Sports & Recreation Convairiety

Golf Entries Open Today For Match Play Tourney

Entries open today (Aug. 17) at ext. 1705, Plant 1, for one of the top Convair SD CRA golf events of the year, the 54-hole match play tournament Sept. 11, 18 and 25 at Circle R.

Reservations will close at noon Aug. 26. Linksmen are reminded that in order to play in the match play tourney they must have an established handicap with Convair. In other words, they must have competed in at least three of the monthly tournaments sponsored by either CRA or the Convair Golf Club since Jan. 1.

Individual trophies will go to winners and runners-up of the Circle R tourney, according to Ken Wulfemeyer, golf commissioner.

More than 130 SD golfers entered the sweeps this month played at Coronado. Stan Gmyr (Dept. 6) added another tourney victory to his collection, winning low gross honors in the first handicap group with a 74. Ranked second and third were Wayne Hines (Dept. 180) with 75 and Ralph Long (Dept. 100) with 78.

A 67 earned low net for Charles Maikish (Dept. 190), followed by a 69 tallied by Fred Wells (Dept. 3) and a 70 shot by Dick Hanson (Dept. 6).

Ed Caldwell (Dept. 188) took low gross in the second handicap group (15-20) with a 79. Tied for second, with 85s, were Charles Ward (Dept. 231) and Sterling Campbell (Dept. 6). Low netters were led by Bryce Bludworth (Dept. 31) with 65 and Lawson Willingham (Dept. 401) with 67. Tied for third, with 70s, were William Gosch (Dept. 6) and Jim Flitters (Dept. 6).

Winning low gross scores in the third handicap group were 91, 92 and 95, scored by George Thiersch (Dept. 8), Frank Arb (Dept. 7) and Bob North (Dept. 6). J. Sinnott (Dept. 7) was first low net with 68. H. Kobrich (Dept. 401) was second with 70, and A. Desrosiers (Dept. 123) third with 72.

CRA Calendar

(Convair SD Recreation Association has some 40 activities in operation. For information on SD sports, call CRA headquarters, ext. 1245, Plant 1.)

★ ★ ★

BADMINTON—Tournament 10 a.m. Saturday (Aug. 20), Federal Bldg., Balboa Park. Entries taken until 4:30 p.m. Aug. 19 by Tom Richardson, ext. 2301, Plant 1.

BOWLING—Registration open for winter keg play. Contact Jim Hayman, ext. 1155, Plant 1, or Mike Brooks, HO-9-8793.

BRIDGE CLUB — Meetings first and third Tuesdays, 7:30 p.m., Hotel Barcelona, 326 Juniper St.

DELTA DIVERS — Meeting Tuesday (Aug. 23), 7:30 p.m., Conference Bldg., Balboa Park.

GOLF CLUB—Entries open until tomorrow (Aug. 18) for Aug. 20-21 tourney, Coronado course. Call Alma, ext. 552, Plant 2. Entries open today (Aug. 17) for match play tourney, Circle R, Sept. 11-18-25. Call ext. 1705, Plant 1.

GUN CLUB—Trap and skeet shoot Sunday (Aug. 28), CRA Range, Gillespie Field, 9 a.m.

ICE SKATING—Convair night every Thursday; discount rates between 6:30 and 8 p.m. at Iceland, 6055 Lake Murray Blvd.

JEEP CLUB—Quarterly meeting, Convair club and SD Ridgerunners, 8 p.m. Aug. 17, Civil Defense Bldg., Gillespie Field.

MOVIES—Reduced-price movies Tuesday and Friday evenings at Academy Theater, 3721 University Ave. Adults, 25¢; children, 15¢.

PISTOL CLUB — Next shoot Sunday (Aug. 28), 9:30 a.m., San Diego Police Pistol Range.

RADIO CLUB—Meeting tomorrow (Aug. 18), 7:30 p.m., Harbor Drive headquarters. Family picnic Sept. 10, Pecan Park.

RIDING CLUB—Horse Show and Gymkhana Sunday (Aug. 21), Flying Hills Ranch, morning events start 10 a.m.

SQUARE DANCING — Luau and party night dance Aug. 27, University Heights Community Center, 4044 Idaho St. Potluck at 6:30 p.m.

WATER SKI CLUB—Skiing sessions, free instructions, Saturdays and Sundays, 9 a.m. to 1 p.m., Tierra del Fuego, Mission Bay.

WOMEN'S ACTIVITIES — Registration is now open for new beginners' charm school starting Sept. 20. Call ext. 1245, Plant 1.

300 to Enter Horse Show

More than 300 riders are expected at a Horse Show and Gymkhana sponsored by Convair SD Riding Club this Sunday (Aug. 21).

Morning events will start at 10 at the Flying Hills Ranch, located at end of Rippy St. in Fletcher Hills.

Spectators are invited admission free. Grandstand seats will be provided, as well as a cook shack serving food and refreshments.

Six morning events will be followed by special show during the noon intermission, featuring the Convair Color Guard and award ceremonies. Prizes will be given for the best Western-dressed boy, girl, man, lady, parade horse and most comical rider. Oldest and youngest riders in rink will also be honored.



CHAMPS—Two Convair SD softball teams cinched championships in city leagues this month. Swing-shift team members in top photo are manager Joe Arnieri and pitcher Jim Blackwell (crouching) and from left: Don Williams, Bill Murphy, Waldo Coyle, Bob Shannon, Phil Estrada, Robert Riveroll, J. G. Jacobo, Bob Gordon and Hugh Wilkison. At bottom are Eagles, winner of city Amateur Softball Association play. From left (first row): Tommy Martinez (standing), Mel Stilson, Al Hooper, Dick Evilsizor, Bob Stratton, Curt James, Jim Gennette, Jack Snyder. From left in back row: Bill Tincup, Pete Gonzales, Jim O'Brien, Norm Dahl, Jerry Stryker, and Bernard Schmidling.

Persistent Golfer Close, In, Closer

For past three weekends in row Tom Elliott (Dept. 34-1) has barely missed, made and just missed holes-in-one on the short Presidio golf course in Old Town.

The first weekend he missed ace by two feet, he canned a 110-yard poke the second Saturday, missed the same shot the next week by exactly three inches.

1,000 in Attendance At Third Coinarama

Third annual Coinarama, staged this month with assistance of Convair SD and Astro Coin Clubs, was the best to date in terms of attendance, exhibits and dealers, Bob McCracken, president of SD Coin Club, reports.

McCracken, who was general chairman of the Coinarama, said almost 1,000 persons attended the event. "So many persons were participating in the coin auction that we had to move to a larger room," he said.

At a SD Coin Club meeting last night William Tragsdorf discussed "Standardization of Grading Coins." His talk was an amplification of a magazine article he had authored.

Two Convair SD Softball Squads Win City League Championships

Two Convair San Diego softball teams last week wrapped up championships in their respective city leagues.

Behind the one-hit pitching of Bob Miller the Convair Eagles whitewashed Rohr 4-0 to give them the undisputed title of the Amateur Softball Association League. Their record stood at seven wins and one loss in the second round of play. They previously had won the first-round title.

With league activity behind them, the Eagles this week are playing in the Metro San Diego ASA district tournament on the Helix High School diamond. Tourney winner will go to Whittier for the South Pacific ASA regional.

A perfect record of eight wins cinched the championship of the Industrial Swing Shift City league for Convair's entry.

It marked the second straight undefeated year for the SD swing squad and third league championship in row. Season's story centered pretty much around pitcher Jim Blackwell, who among other things, pitched a no-hit, no-run game and won another 7-5 with a bases-loaded homer.

Convair SD shop league play is expected to wind up this week. A best two-out-of-three series next week will match American and National League winners.

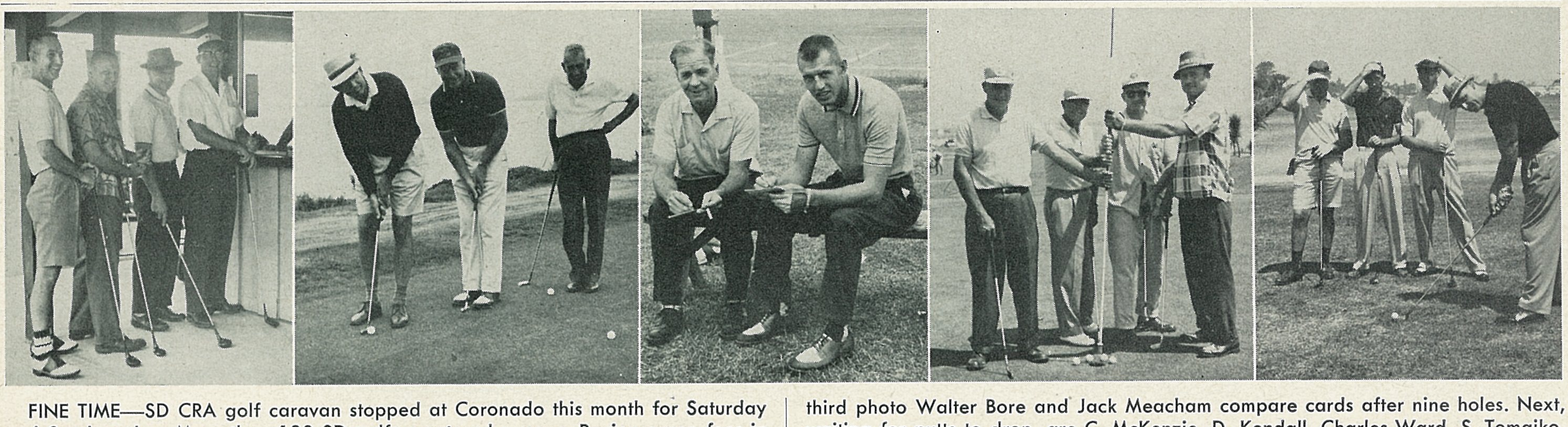
In National League games played last week Loft banged Tabulating 11-3 and Fuselage squeaked by Flite Test 1-0. The win gave Fuselage a league-leading slate of four wins and no losses in the second round.

In the American League F-106 beat Dynamics 3-1 and the 880 Jets played a 1-1 tie with Mockup, first-round winner in the league.

Radio Club Plans Pecan Park Picnic

Pecan Park will be the setting for a Convair SD Radio Club family picnic and potluck dinner Sept. 10, J. B. Baker, commissioner, reports.

Club members are asked to bring their own food and refreshments, the club will conduct games and furnish prizes. Next Radio Club meeting will be held tomorrow (Aug. 18) in the Harbor Drive headquarters at 7:30 p.m.



FINE TIME—SD CRA golf caravan stopped at Coronado this month for Saturday and Sunday play. More than 130 SD golfers entered sweeps. Paying green fees in first photo are Bob Lea, V. Mavrinac, "Moon" Badman, H. Kobrick. On putting green are Jerry Swartz, Ken Wulfemeyer, golf commissioner; and Ralph Welch. In third photo Walter Bore and Jack Meacham compare cards after nine holes. Next, waiting for putts to drop, are C. McKenzie, D. Kendall, Charles Ward, S. Tomaiko. On tee are Bill Clifford, Wayne Hines, Stan Gmyr and Dick Ramsdale. Entries are open now for CRA match play tourney next month at Circle R.

Astro Pushing to Speed Atlas Base Activation

Astronautics operating division has opened an "all-out push" aimed at speedy activation of Atlas missile bases.

The push followed a top level conference in Washington, D.C., called late last month by Defense Secretary Thomas S. Gates Jr., involving some 50 defense contractors connected with Atlas and Titan base activation. Attending for General Dynamics Corporation were Board Chairman Frank Pace and C. Rhoades MacBride, General Dynamics executive vice president.



IN CHARGE — Maj. Gen. Thomas P. Gerrity is now key figure in Atlas base activation program.

"Timely activation of Atlas bases is a matter of the gravest national urgency," Pace declared in a special statement to Convair Astronautics employees.

"General Dynamics is the largest and greatest producer of defense materials in the nation. We thus bear a tremendous responsibility to our fellow Americans. The performance of you Astronautics people on the Atlas has been truly magnificent . . . Now we must continue and expand our good work and prove we can be equally outstanding in the very difficult job of activating these bases . . ."

Coincident with the Gates conference, August C. Esenwein, Convair executive vice president, and J. R. Dempsey, Astronautics manager, were conferring with Gen. Curtis LeMay, Air Force vice chief of staff, on the same subject.

Meanwhile, Air Force Secretary Dudley Sharp announced that the Air Materiel Command has been assigned management responsibility for base activation.

Maj. Gen. Thomas P. Gerrity has been appointed Commander of AMC's Ballistic Missiles Center at Inglewood, Calif., with full responsibility. Col. Loren Anderson, formerly of Wright-Patterson AFB, has been assigned to the Office of The Commander AMC as a Deputy Chief of Staff to maintain staff surveillance over the entire site activation program.

AMC's responsibility will not extend to the existing ICBM sites at Vandenberg, Warren and Offutt AFBs, but will include the following Atlas bases now being built or scheduled: Fairchild AFB, Wash.; Walker AFB, N.M.; Lincoln AFB, Neb.; Forbes and Schilling AFBs, Kan.; Altus AFB, Okla.; Dyess AFB, Tex.; and Plattsburg AFB, N.Y.

Senior Air Force colonels have been appointed as Site Activation Task Force Commanders at the various bases, reporting directly to General Gerrity.

They will be responsible for successful activation of their respective sites, including construction, installation, checkout, and the site turnover to SAC.

Atlas missile sites and task force commanders are:

Fairchild AFB: Col. Thomas S. Jeffrey Jr.

Walker AFB: Col. Robert I. Barrowclough.

Forbes AFB: Col. William E. Ruark.

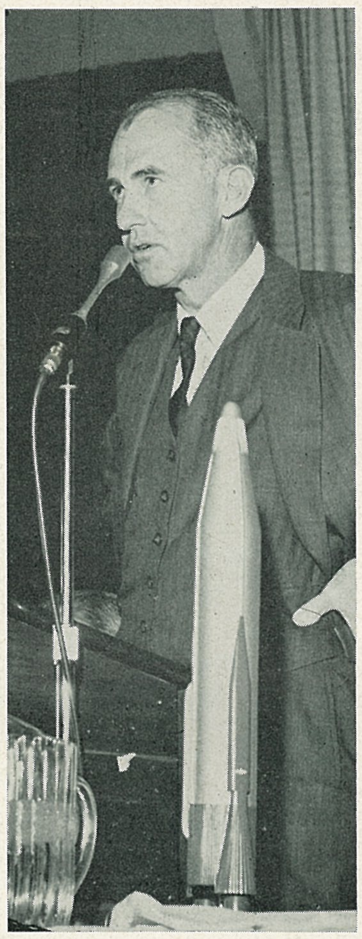
Schilling AFB: Col. Arthur W. Cruickshank.

Altus AFB: Col. Ernest L. Ramme.

Dyess AFB: Col. Hugh H. Manson.

Plattsburg AFB: Col. Calvin W. Fite.

Five other AF colonels have been appointed for Titan bases.



PURPOSEFUL — Frank Pace, General Dynamics board chairman, this week called upon Astronautics operating division for extra effort in activating Atlas bases. Pace praised Astro people for performance to date.

Atlas Launch Positions Join In SAC Alert

OFFUTT AFB, NEB. — Three Atlas launch positions located at Cheyenne, Wyo., last week had been turned over to the Strategic Air Command and were declared operational by Gen. Thomas S. Power, SAC commander-in-chief.

SAC headquarters is located at Offutt AFB, Neb.

The launch positions were turned over to the 564th Strategic Missile Squadron by the Air Research and Development Command. The squadron is based at Warren AFB, Cheyenne.

General Power said the missiles have been placed on alert status along with SAC's B-47 and B-52 bombers and the Atlas ICBMs at Vandenberg AFB, Calif.

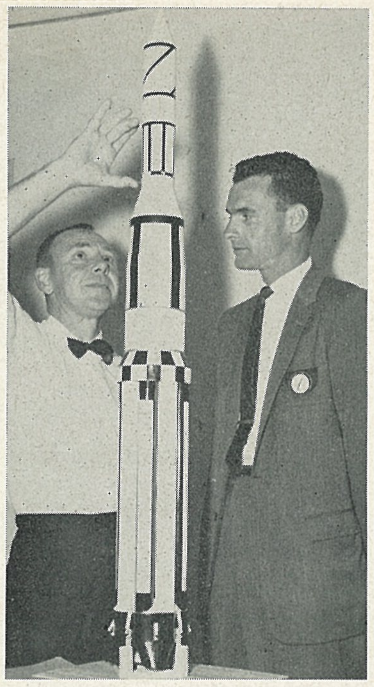
The new facility constructed by the Corps of Engineers for AFBMD will be manned by personnel of the 564th SMS, commanded by Col. Julius Pickoff of Manor, Tex. Additional launch positions now undergoing final installation and checkout of technical equipment also will be operated by the 564th, which is assigned to the 706th Strategic Missile Wing at Warren AFB.

Thirteen Atlas ICBM squadrons are presently programmed. Three squadrons eventually will be located at the Wyoming base.

Four-Foot Model of Space Probe Constructed by Air Force Capt.

Capt. R. H. Campbell, USAF, assigned to Astronautics' Centaur project office, recently presented G. D. Davis, senior project engineer for Centaur, with a four-foot model of the space probe.

Capt. Campbell is assigned to Astro as part of the AF training with industry program.



THINGS TO COME — G. D. Davis, senior project engineer, Centaur program, points out Centaur portion of model space probe built by Capt. R. H. Campbell, USAF (right). Capt. Campbell presented model to Davis recently.

The balsa wood model, which Capt. Campbell built in his spare time over a two-month period, is a 1:48 scale replica of the 192-foot missile.

Capt. Campbell is now working on a scale launch platform.

The "real-life" service tower for the big bird will be 310 feet high, and when completed at Cape Canaveral will be the tallest structure in Florida.

Canadair Host On Reliability

Seventh meeting of the General Dynamics Corporation Reliability Panel will be hosted by Canadair Ltd. Aug. 31-Sept. 1 in Montreal.

Convair SD's W. R. Monroe, manager of reliability, will chairman the 31-member group representing all Convair operating divisions, Canadair, Liquid Carbonic, Stromberg-Carlson, and Electric Boat.

Guest speaker will be George Henderson, head of the reliability group for the Army Rocket Guided Missile Agency.

Paul Benner, Convair SD chief of quality assurance, is secretary of the panel. A third post, that of chairman of the reliability research panel, will be filled by N. H. Simpson, manager of reliability, Convair Fort Worth.

Papers will be presented at the symposium by Allen B. Oxley, Canadair; T. A. Vogel, Convair Pomona; J. Y. McClure, Convair Fort Worth, Simpson and Monroe.

7,000 Mi. Atlas Flight Scored Across Atlantic

CAPE CANAVERAL—Convair Astronautics crews here manning Complex 12 helped give further demonstrations of the Atlas missile's versatility and accuracy last week in a successful flight of 7,000 statute miles.

It was the second long-range flight for these men, exceeded only by a 9,000-mile flight staged May 20.

William D. Taylor was test conductor for both.

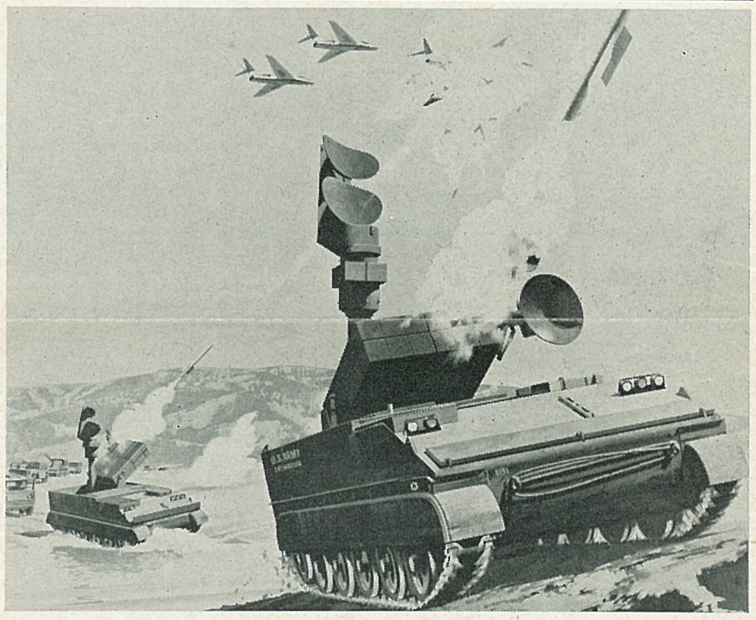
The missile, Atlas 32-D, roared aloft at 11:09 a.m. (PDT) for a 40-minute flight. The nose cone impacted some 200 miles west of the South African coast and 1,200 miles southeast of St. Helena Island, a British possession.

While announcing the missile successful over a prescribed course, the Air Force did not reveal the exact range or accuracy of the missile.

Convair to Observe Labor Day Holiday

All Convair operating divisions will take a holiday on the first Monday of next month (Sept. 5) in observance of Labor Day.

Except for essential maintenance, industrial security, and necessary production personnel, all Convair people everywhere will enjoy a three-day weekend. Work will resume at regular hours on Tuesday (Sept. 6).



MAULER IN ACTION—Artist's conception shows Mauler mobile, automatic-firing air defense system in action.

Anti-Missile Mauler Emphasizes Mobility

WASHINGTON—The Department of the Army last week released an artist's conception of the Mauler air defense missile system, now under development by Convair Pomona.

It showed tracked vehicles traveling across open country, each carrying a self-sufficient fire unit consisting of ground-to-air missiles and target-detection and fire-control equipment.

A highly mobile weapon using solid propellant, the Mauler missile is designed to destroy short range enemy ballistic missiles and rockets, and high-performance tactical aircraft that bomb, strafe, harass or reconnoiter near forward battle area positions.

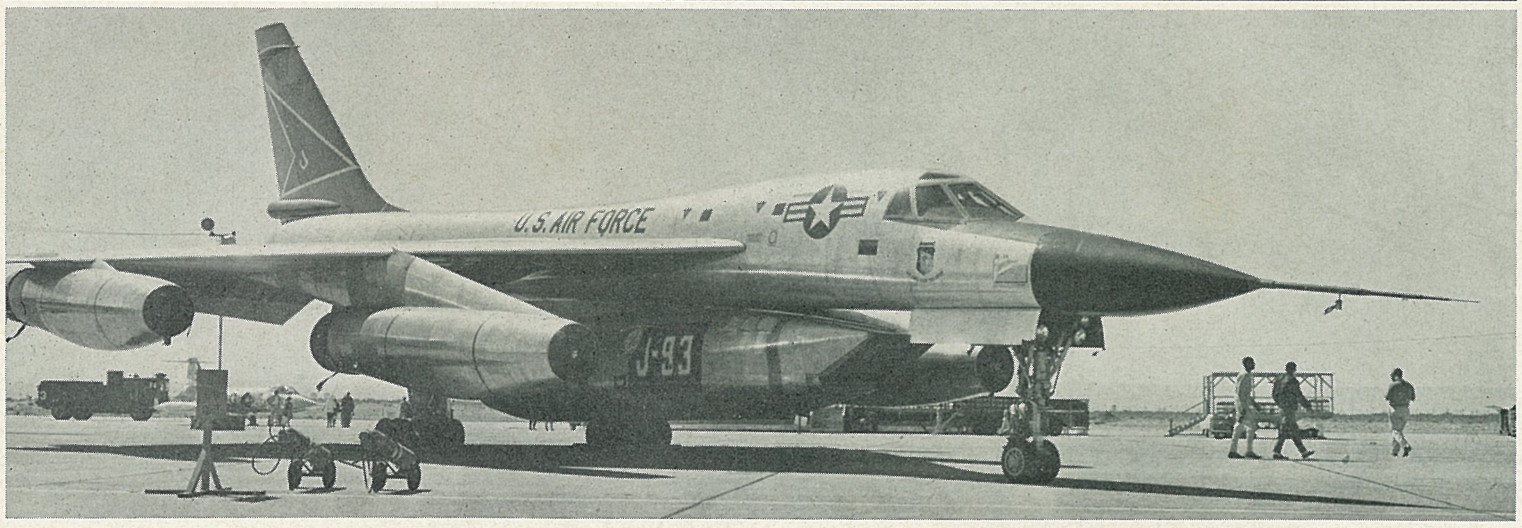
The Army Rocket and Guided Missile Agency, an element of the Army Ordnance Missile Command at Redstone Arsenal, Ala., has overall charge of Mauler development.

It is anticipated that any future enemy will use modern jet aircraft in close support of his own forward units. The Mauler weapon, a part of the Army's modernization program, will be a powerful answer to that threat.

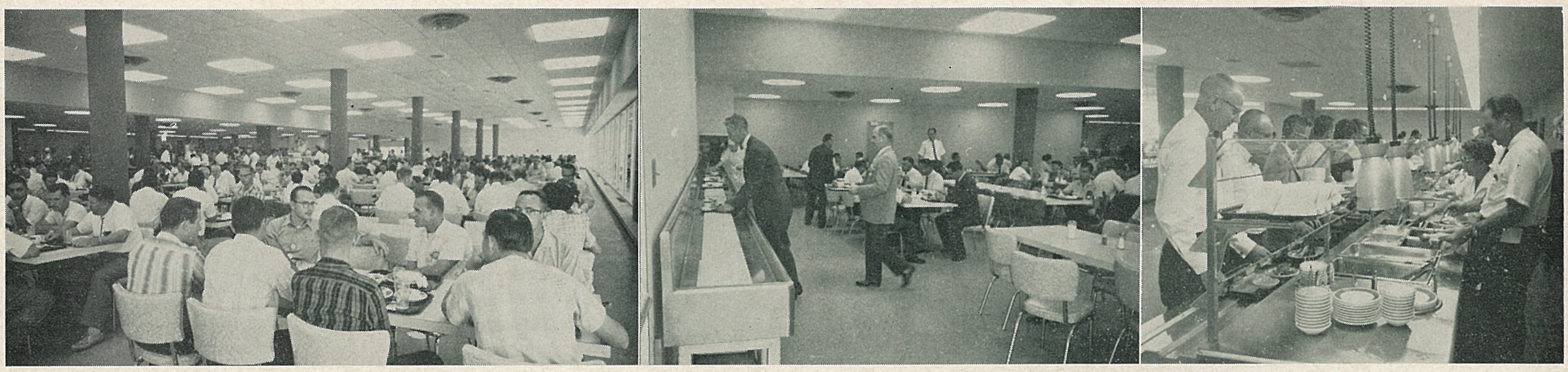
Each Mauler fire unit will be contained entirely on a self-propelled chassis of standard design. The fire unit will be capable of delivering accurate fire even while moving. This characteristic conforms to present Army policy, to give a high degree of mobility to all its new weapon systems so that an enemy is not presented with targets which are anchored to the ground.

The Mauler fire unit will be light enough to be carried by aircraft or helicopter, and to be dropped by parachute into battle areas. Each Mauler fire unit will contain its power supply, and target-detection and electronic computer fire-control equipment.

The missile will be prepacked in lightweight cases that will serve both as shipping containers and as launching tubes.



TEST BED—General Electric's new J-93 engine, earmarked for North American's Mach 3 B-70, will do its first flying in B-58. Hustler is shown here with J-93 flight test engine pod beneath fuselage. It will be used to flight test new engine. With J-93 operating, Hustler's four J-79s will be throttled back. Photo was taken during an open house at Edwards AFB, Calif.



FULL HOUSE—Convair SD's newly-opened cafeteria on Pacific Highway draws capacity crowd during first week of operation as hundreds of Convair diners go through fast "scramble" serving process. In center shot is conveyor belt at rear of main floor dining room for removal of dishes. At right, W. E. Rickman, Prophet Co. manager of Convair cafeterias, acts as pivot man on serving line. Many other Convair people are taking advantage of rooftop canteen service.

C-V CONVAIR

Published every other Wednesday.

GD GENERAL DYNAMICS

Convair Division of General Dynamics Corporation.

Convairiety

San Diego

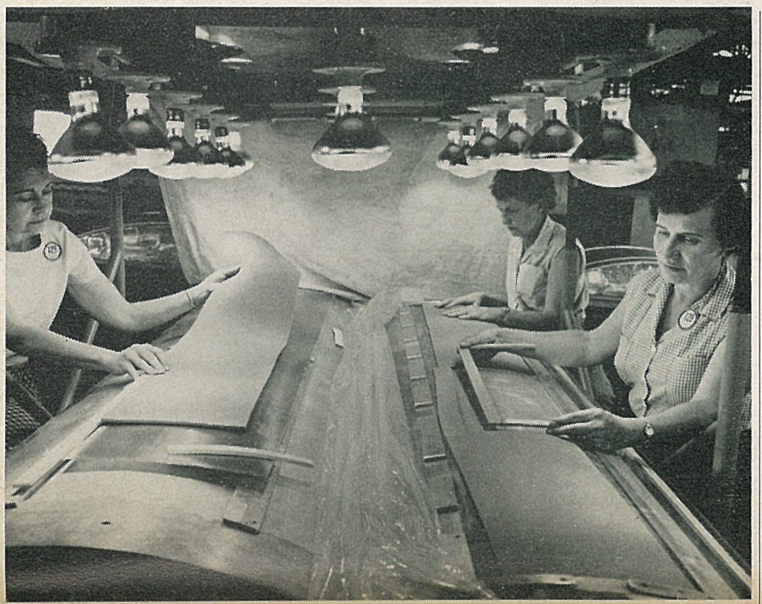
Palmdale - Holloman

EDITION

San Diego news office: Plant 1, Bldg. 32, ext. 1071.

Vol. 13, No. 18 Wednesday, August 31, 1960

SAN DIEGO, POMONA, ANTELOPE VALLEY, CALIF. ASTRONAUTICS OFF-SITE BASES, FORT WORTH, TEX.



IN PRODUCTION—Plastic fabricators Ada Casner, Alma Bahnson and Greta Phillips lay up jet transport cabin wainscot panels in Bldg. 3 bonding fixture as previously subcontracted trim work is brought back to SD.

'School' Resumes Again; Fall Classes Convene

School will begin again the middle of next month for Convair San Diego people planning to sign up for in-plant classes offered in cooperation with San Diego Junior College, announced H. W. Rubottom, chief of SD educational services.

They may sign up now for classes to start during the weeks of Sept. 12 and Sept. 19 at Plant 1, Plant 2, and Rose Canyon. Anyone may enter the classes without prerequisites on his own off-work time.

Classes at Plant 1 will include Blueprint Reading, Basic Electricity, Basic Electronics, Shop Mathematics, Slide Rule, Technical Writing.

At Plant 2 courses will be held in Basic Electronics, Basic Electricity, Effective Writing, Blueprint Reading.

Classes at Rose Canyon will be in Advanced Blueprint Reading and Effective Writing.

First supplementary course in Technical Writing given at Convair SD drew a large class this summer. About 30 from service publications, service engineering and flight test completed the six-week course the first of this month. The fall course will be for a full semester or 72 hours.

Hours, days, locations of all fall courses will be posted on training bulletin boards throughout the plants. Information may be had from Lee Woll, coordinator, at ext. 491, Plant 1, or ext. 211, Plant 2, or at the educational services offices, Bldg. 15, Plant 1; Bldg. 28, Plant 2; Rose Canyon, near the cafeteria.

Salvage Yard at SD To Close Saturday

Salvage yard at Convair San Diego Plant 1 will be closed this Saturday (Sept. 3) because of the Labor Day holiday weekend, reminded R. H. Lange, material sales supervisor.

Interior Trim For 600, 880-M In Production

Interior trim for Convair jet transports is being manufactured and assembled at the Convair San Diego plant with activation of the reorganized Dept. 129 in Bldg. 3, Plant 1.

Going into production this month, fabrication of all panels and installations that make up the finished interiors of Convair 880-Ms and 600s now will be done at Convair SD, with the exception of a few plywood panels, still subcontracted. Interior trim details for the basic 880s were all furnished by outside vendors.

Approximately 8,000 sq. ft. of space along the east side of Bldg. 3, both ground floor and mezzanine, are occupied now by functions of production plastics and interior trim. Dept. 129 formerly designated production plastics operations only.

Under direct responsibility of F. H. McLaughlin, superintendent, the enlarged department includes 194 people. All techniques of the processes, new to Convair SD, were developed within the department and tools formed by tool engineering for shaping of different types of panels.

As need arises, Dept. 129 interior trim fabricators will be turning out 170 panels for each Convair jet transport within a few days to meet production

(Continued on Page 2)

Paint Spray Booth Assembled For SD

A new paint spray booth is going into the plant engineering paint shop at Convair San Diego Plant 1 this week. The 30-ft. waterfall-type booth was purchased from Devilbiss Co., Toledo, Ohio, and assembled at the Convair plant.

The old booth, of the same type as the new one, is being relegated to the salvage yard after seeing many years of service in the paint shop.



EXHIBITION—Added attraction at "Convair San Diego night" Friday (Sept. 9) at Westgate Park will match Convair Eagles, champions of county ASA league, and San Diego Big Shots, all-star softball team that includes seven Convair players. "Choosing up" from left: Tommy Martinez, Eagles' manager; Ralph Kiner, Padres' general manager; Dean Froggatte, Big Shots' manager; and Gil Crosthwaite, CRA softball commissioner.

Sale Starts Tomorrow On 'Padre Night' Tickets

Tickets, two for the price of one, go on sale tomorrow (Sept. 1) for a special "Convair San Diego" night Friday (Sept. 9) at Westgate Park.

The twilight doubleheader will match the Padres and Salt Lake City, first game starting at 7 p.m. A special softball exhibition, between games of the doubleheader, will match the Convair Eagles and the SD Big Shots.

The Eagles recently won the championship of the San Diego County ASA league and the Big Shots are an all-star aggregation of local softball talent.

Convair baseball fans will get two tickets for the regular $2 admission charge at employee services, Plants 1 and 2. All seats will be upper and lower box.

"Fun-go" cards, with two extra squares marked out as bonuses, will be given each Convair buyer at time of ticket purchase. Winners will have their choice of a variety of prizes.

The 2,000 tickets will be sold on a first-come, first-served basis.



LIVING IT UP—"Games and fun night," staged Aug. 17 by Convair SD Management Club, attracted almost 550 members to Balboa Park Club, one of top attendance marks of year. Buffet was served continuously through evening. Center photos are scenes at entrance to club where members were greeted in real style. At right is one of carnival shows set up for meeting. Convair wives and daughters pitched in to make evening success.



MUGGED—J. R. Spurgeon (Dept. 6), right, took home Mug of Month at August Management Club meeting. Among other things, he was cited for his efforts in promoting glider and soaring competition in the San Diego area. H. P. Williams (Dept. 100) made presentation.

150 Riders Enter CRA Club Horse Show; Hundreds of Spectators See All-Day Event

Trophies, ribbons and merchandise prizes were distributed among 150 riders who entered a Convair SD Riding Club Horse Show and Gymkhana Aug. 21.

Five hundred spectators saw the all-day affair organized by show manager Frank Darnell. Entertainment during the noontime intermission was supplied by the Convair SD Mounted Color Guard.

Following is list of events and winners:

Bareback Horsemanship, Nadine Gonzales; Musical Hots, Georgina Cooper; Pleasure Horse, Gretchen Tank; Backing Race, B. C. Smiley; Horsemanship (17 and under), Spike Evans; Texas Barrel Race, Katie Perry; Pleasure Horse (17 and under), Frank Evans Jr.; Keyhole Race, B. C. Smiley.

And: Horsemanship Open, Nadine Gonzales; Boot Race, Paula Farrington; Quarter Horse Pleasure, Cynthia Campbell; Figure 8 Stake Race, Barbara McGregor; Horsemanship (non-winners), Sally Derrick; Color Class (pleasure), Evelyn Taylor; Trail Horse, Evelyn Taylor; Rider Pickup, Barbara McGregor.

Future club events will be decided at a meeting Thursday (Sept. 8) at 7:30 p.m. in the CRA Clubhouse, Gillespie Field. An overnight campout is presently planned sometime in the latter part of September or early October.



DRESS REHEARSAL—Convair SD apprentices give complete first aid to "victim" at last class under watchful eye of Orin H. Myers (far right), American Red Cross first aid director. Twenty-six completed course taught by Vincent Tombrello (Dept. 3), second from right. Students (from left): W. J. Ryan, K. H. Cooke, D. K. Score, B. McHenry. "Victim" is F. E. Allison.

Airline Tickets Teletyped Automatically Into Reservations Office at SD's Bldg. 19

Airline tickets are being received automatically by teletype installed this month in the Convair San Diego ticket reservations office in Bldg. 19.

The teleticketing-dataphone service connects the SD office directly with five Los Angeles and San Diego airline reservation offices. Installed by Pacific Telephone Co., the teletype can print out several ticket forms each minute, depending upon amount of data transmitted.

A private telephone line connects Convair SD office with TWA and Continental Airlines offices in Los Angeles and American Airlines, United Air Lines, and Western Airlines in San Diego.

With the addition of the new receiving equipment, the Convair office now is teletype-equipped for both sending and receiving. A Western Union sending teletype, hooked into the Convair communications center, is used to make hotel reservations at General Dynamics Corporation locations throughout the United States and Canada.

★ *Convairiety* ★

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SD Editorial Offices, Building 32, Plant 1, ext. 1071. Staff: Grayce Fath, Helen Pemberton, Fred Bettinger.

Astronautics Editorial Offices. Bldg. 8, Astro site, ext. 3322. Staff: Bryan Weickersheimmer, news editor; Willard Harwood.

FW Editorial Offices, Col. 73C, ext. 2961. Mailing address: Convairiety, Convair, Fort Worth, Texas. Telephone PErshing 8-7311. Staff: Dave Lewis, news editor; Susan Tilley, Mary Beck.

Pomona Editorial Offices, Room 106-D, Bldg. 1, ext. 6226/5279, mail zone 3-3. Staff: James Combs Jr., news editor; Dorothy Keller.

Palmdale-Holloman Editorial Offices: Chuck Willey, CRA office, Room 36, Bldg. 301B, ext. 331, Palmdale facility. O. J. Ancel, industrial relations, ext. 20, Holloman AFB.

Interior Trim For 600, 880-M In Production

(Continued from Page 1)
schedules, said L. W. Stamper, Dept. 129 foreman. As jet transport production steps up its pace within the next few months, the department will be expanded, he forecast.

Reporting to Stamper are nine assistant foremen, each in charge of a different process.

E. E. Carpenter directs panel manufacture; D. R. Wilson, routing and covering; D. G. Cobb, fabric, trim, rubber cutting and sewing, and upholstering. All of these functions are located on Bldg. 3 mezzanine.

On the first floor is special assemblies, including radome nose cone and cargo container production under R. F. Stull on first shift and George Hirst, on second. Carl Ogle, day shift, and Nick Maisheff, second shift, are in charge of cutting and trimming operations of plastics and fiber glass. Mike Bryan is assistant foreman for layup and bagging of plastic details and Boltaron forming, and Fred Yarick oversees mechanical sub-assemblies, including lavatory, coat rack and hat rack panel production.

Santo Tomas Trip Planned by Divers

Beginners in particular are invited to attend a Delta Divers trip to Santo Tomas on the Sept. 10-11 weekend.

Novices will find the excursion a fine opportunity to practice their diving and fishing skills, according to Harry Ruscigno, club president. Reservations can be made with Ruscigno, ext. 2348, Plant 1.

Fifteen members attended a diving trip to the Coronado Islands Aug. 15. Largest yellowtail, a 19½-pounder, was speared by Al Jones.

College Catalogues Available For Fall

Information on courses open to Convair San Diego people this fall at schools in the San Diego area is on hand at all SD educational services offices.

Catalogues for the fall semester at San Diego State College, SD Junior College, University of California Extension, California Western University, University of San Diego and UCLA, as well as San Diego evening adult classes are available at Plant 1, Plant 2, and Rose Canyon offices.

Vacation Photos Meeting Subject

Vacation photos and slides will be topics of discussion when members and guests of Convair SD Camera Club meet Monday (Sept. 12) in the Photo Arts Bldg., Spanish Village, Balboa Park.

Members are asked to bring not more than 20 slides to the 7:30 p.m. meeting or as many black and white vacation prints as they wish. Advice will be given on request only.

850 Convair Bowlers Start League Play

During the next two weeks more than 850 Convair SD bowlers will start rolling in 17 winter leagues, Jim Hayman, commissioner reports.

A few openings are still available in some leagues. On occasion, fill-in keglers are needed to replace bowlers who have changed shifts. If interested, call Jim Hayman, ext. 1155, Plant 1.

SD MAN WEDS

Ray Behlman, SD Dept. 15, claimed Marian Vitus of San Diego as his bride Aug. 20 in a ceremony performed in Our Lady of the Sacred Heart church. They left immediately on a motor trip that will take them through the northwest, after which they will return to San Diego to make their home.



NEW CLASS—H. W. Rubottom, SD educational services chief, congratulates Louis Henderson (Dept. 15), instructor, at conclusion of first Technical Writing in-plant course at Convair SD which drew overflow attendance this summer. Fall course begins next month.

Cal-Western, Convair Program Offers Nearly 50 Courses

Enrollment for the fall semester of the California Western University program offered in cooperation with Convair will be held Sept. 14-16.

Convair San Diego and Astronautics people may register for management development courses at the university's Point Loma campus in the International Relations Bldg. on Dupont St. between 5:30 and 8:30 p.m.

Tuition is prepaid by Convair for San Diego and Astro supervisors and non-represented flat-salaried people approved for the program. Completing the spring semester were 69 from Convair SD and 98 from Astronautics.

This fall 47 courses, including three graduate courses, will be offered in the evening program. Those registering are urged to sign for the classes given during times they will be able to attend throughout the full semester. Night-shift participants may enter day classes at the Point Loma campus, if they can attend for the entire course.

New students must have signed approval of their supervisor before registration. Forms are available from departmental heads or educational services offices at SD and Astro.

D. G. Walton, ext. 1671, Bldg. 16, Plant 1, is in charge of San Diego registration. R. E. Graves, ext. 1936, Astro site, is coordinating Astronautics registration.

Entries Close Friday For Ticket Drawing

Final drawing for Padre baseball tickets this season will be Friday (Sept. 2). Deadline is 2 p.m.

Winners will each receive two tickets from CRA to games at Westgate Park between Sept. 6 and Sept. 11. Padres will meet Tacoma Sept. 6-7-8 and Salt Lake City, Sept. 9 and 11.

Entry slips must include name, clock number, department number, shift, location, and phone extension, one entry per person.

Boxes are located at SD employee services, both plants; at Rose Canyon, in the office of Virginia Cannon, ext. 2125; Fordham St., office of Bessie Cooper, ext. 100; and at the ramp, office of Ralph Sachs, Bldg. 37, ext. 425.

Officers End Tour of Duty At Convair SD

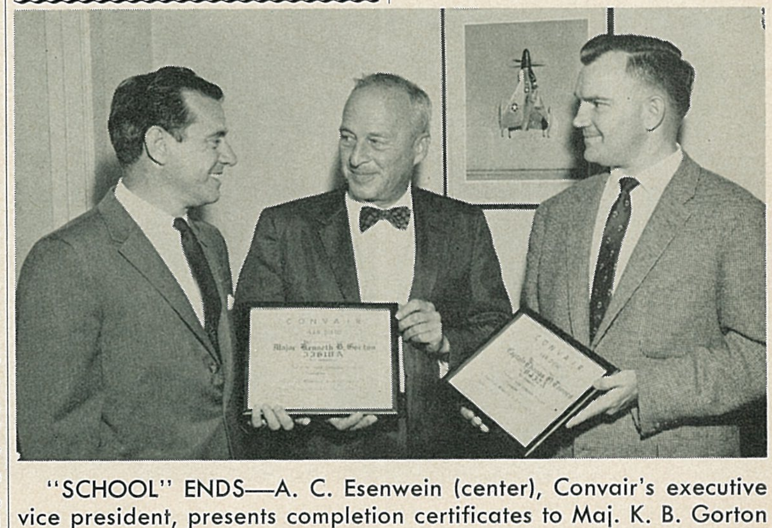
Two Air Force officers, who have been at Convair San Diego during the last year in the training with industry program, received new assignments this month.

Maj. K. B. Gorton has reported to the Ballistic Missiles Center, Inglewood, Calif., in the production and procurement section of site activation. Capt. T. O. Townes is at Dobbins AFB, Marietta, Ga., as chief procurement officer.

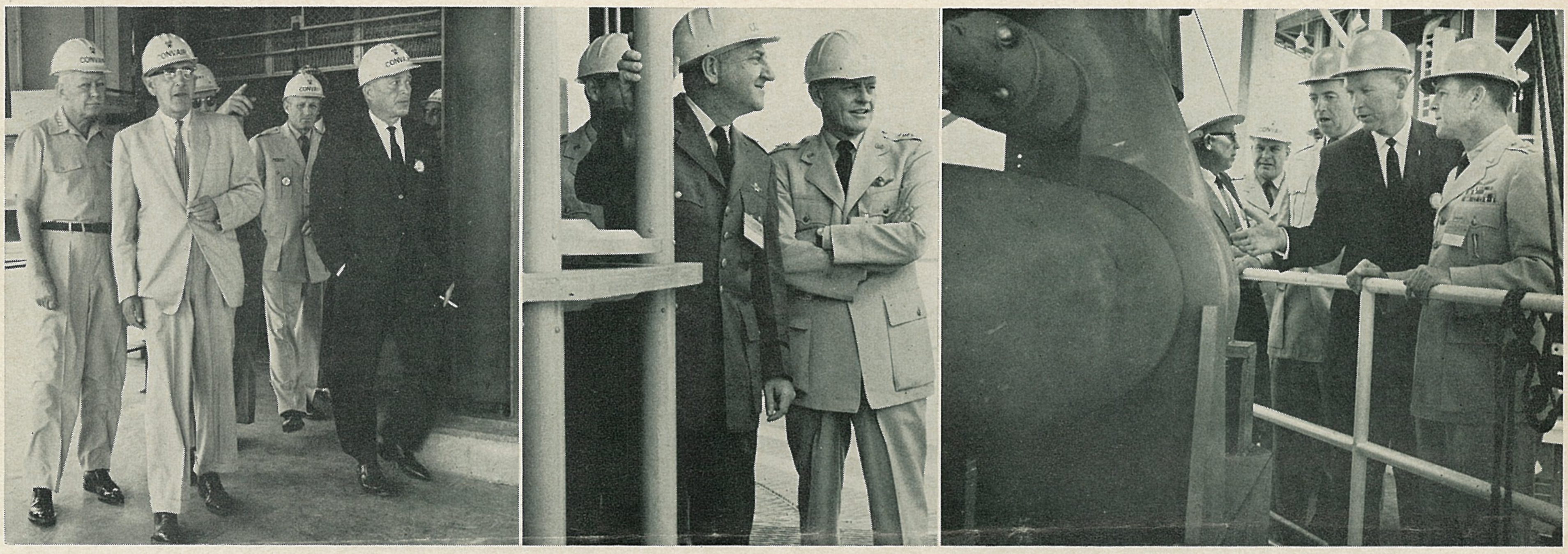
Next AF officers to go into Convair SD's continuing training program on the executive level are Maj. Jack H. Thacker and Capt. Henry H. Connor. They will begin their year's assignment Sept. 6.

Major Thacker is coming to San Diego from the Inspector General's Office, Norton AFB, Calif., where he has been procurement inspector. Captain Connor has been stationed at ARDC Headquarters, Andrews AFB, Md., as chief weapons systems branch, Budget Division.

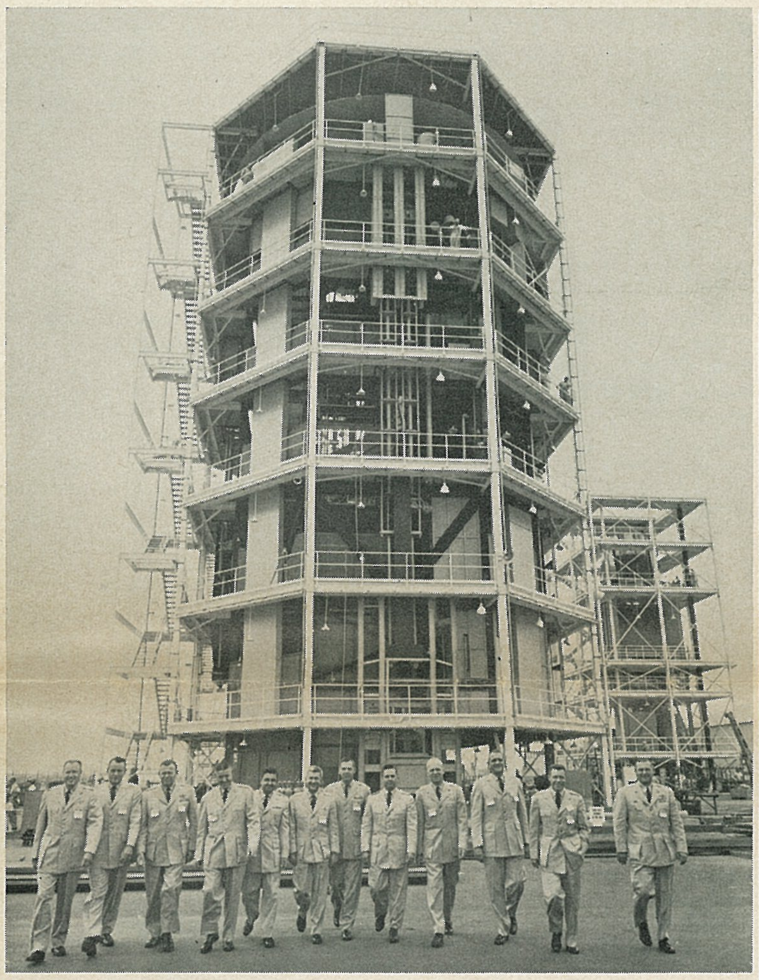
This will be the fourth team of AF officers to go through SD's industry with training program which deals specifically with industrial planning and procurement. They are briefed in all operations of the plant on an administrative basis and visit other Convair operating divisions and General Office during their assignment. The program, which began at Convair SD the fall of 1956, is under direction of educational services department with Mark Saunders as coordinator.



"SCHOOL" ENDS—A. C. Esenwein (center), Convair's executive vice president, presents completion certificates to Maj. K. B. Gorton and Capt. T. O. Townes after year at Convair SD in AF training with industry program.



INSPECTION—Astronautics home plant had distinguished visitors Aug. 8. In left hand photo are Gen. Samuel E. Anderson, Commander of AMC, J. V. Naish, Convair president, August C. Esenwein, executive vice president, and (in background) Col. H. E. Moose, AFPR Astronautics. At far right Maj. Gen. Thomas P. Gerrity, commander of Ballistic Missile Center, inspects silo mockup with J. R. Dempsey, Astro manager, and Brig. Gen. Joseph E. Gill of BMC. Center, Brig. Gen. H. W. Powell, deputy commander, BMD, and Maj. Gen. Osmond J. Ritland, commander, BMD, pause during tour of Atlas production operations.



COLONELS—With "silo" mockup in background at Astro home plant are 12 senior AF officers assigned to Atlas and Titan base activation duties. From left, Cols. Kenneth W. Northamer (Ellsworth), William E. Sault (Beale), Calvin W. Fite Jr. (Plattsburg), Robert I. Barrowclough (Walker), Arthur W. Cruikshank (Schilling), Hugh B. Manson (Dyess), Ernest L. Ramme (Altus), Harmon E. Burns (Mountain Home), Edward J. York (Larson), William E. Ruark (Forbes), Thomas S. Jeffrey Jr. (Fairchild), James H. Thompson (Lowry). Not available for picture, Col. Vernon L. Hastings (Offutt).

Colonels Assume Atlas Base Duty

Air Force senior colonels named to assume final responsibility for successful activation of Atlas and Titan missile bases (**Convairiety**, Aug. 17, 1960) hold some unusual distinctions.

Known as site activation commanders, the men report to Maj. Gen. Thomas P. Gerrity, commander of the Air Materiel Command's Ballistic Missile Center at Inglewood, Calif.

In announcing their appointment, Gen. Gerrity reported the 12 were selected from the best qualified senior Air Force colonels available. They report to their new jobs from a cross-section of Air Force commands.

Between them they have been awarded 10 Air Medals with 25 Oak Leaf clusters; 10 Distinguished Flying Crosses with five clusters; five Legions of Merit with four clusters.

They hold degrees from Illinois, Pittsburgh, West Point, Cornell College, Fresno State, Memphis State, Princeton, Louisiana State, Virginia Military Institute, San Jose State, Wayne, Georgia Tech and Pasadena Junior College.

Following are Atlas site activation commanders with previous duty assignments:

Col. William E. Ruark, Forbes AFB, Kan., 4138th Strategic Wing, Turner AFB, Ga.; Col. Calvin W. Fite Jr., Plattsburg AFB, 306th Bomb Wing, McDill AFB, Fla.; Col. Arthur W. Cruikshank Jr., Schilling AFB, Kan., Air Technical Intelligence Center, Wright-Patterson AFB, Ohio; Col. Hugh B. Manson, Dyess AFB, Tex., Flight Test Center, Edwards AFB, Cal.; Col. Robert I. Barrowclough, Walker AFB, N.M., Headquarters, Strategic Air Command, Offutt AFB, Neb.; Col. Thomas S. Jeffrey Jr., Fairchild AFB, Wash., Ft. McNair, Washington, D. C.; and Col. Ernest L. Ramme, Altus AFB, Headquarters, Oklahoma City Air Materiel Area, Tinker AFB, Okla.

Convair Tests Fuselage For North American Av.

Another aircraft fuselage lies submerged in Convair San Diego's huge hydrostatic test tank at the SD seaplane ramp as preparations get under way for fatigue testing of a plane from North American Aviation, Inc.

Under a $191,000 contract with North American, Convair SD test engineers of the structures laboratory are starting a six-month test program on a T-39 fuselage. North American is building the trainers for the Air Force.

During the next few months the 40-ft. fuselage will go through the same type of punishment inflicted on the Convair 880 fuselage which finished its sojourn in the tank the first of this year. Cabin will be pressurized and flight loads applied to the entire fuselage, vertical tail, and nose landing gear, said John Gillette, project engineer. Gillette directed fatigue testing of the larger 880 fuselage.

The tank, which was stretched to its 110-ft. limit for the 100-ft.-long 880 fuselage, was shortened to 45 feet for the smaller T-39. Only a third as much water, about 100,000 gallons, was needed to fill the tank to the 14-ft. mark for the North American fuselage.

Test results will be used for FAA certification and Air Force approval, explained E. F. Strong, in charge of SD structures lab.

Simultaneously, SD structures test engineers are running windshield proofing tests on a T-39 canopy under a $16,000 contract with North American. This test program is under supervision of A. R. Vollmecke, assistant group engineer, with Lyle Minkler in direct charge.

ASIS Will Hear Convair Men

Convair industrial security representatives are scheduled to address the Sixth National Seminar of the American Society for Industrial Security Oct. 3-5 in Dallas, Tex.

George D. Higgins Jr., Convair director of industrial security, will moderate a workshop session discussing "background investigations." Higgins is treasurer of ASIS.

I. B. Hale, Convair FW chief of industrial security, will also speak at the ASIS seminar. He is a regional vice president of the organization.

President of ASIS is Eric L. Barr Jr., industrial security manager of General Dynamics' Electric Boat Division.

Gen. Dynamics' Commercial Business Expands, Pace Tells Share Owners

In a semi-annual report to share owners covering the first six months of 1960, General Dynamics Corporation reported net sales reached a high of $979,750,000, up from $804,296,996 for the comparable period in 1959.

Earnings were $12,095,000 compared to $15,194,000 in the 1959 period.

"Cost of sales" amounted to $953,349,716. In addition, General Dynamics paid $5,298,765 in interest expense on borrowed money and $10,875,000 in U. S. and Canadian income taxes. "Other income" amounted to $1,868,550.

"Work in process inventory write-downs in connection with the 880/600 jet transport program and increased interest expense more than accounted for the decline in earnings," Frank Pace Jr., board chairman, reported.

"The Corporation's short-term borrowing requirements have increased substantially this year to meet inventory and financing needs of the commercial jet program, as well as to maintain high levels of production in significant military and commercial programs. Some reduction of the short-term debt has begun in the third quarter, but the general level of borrowing will remain high for some time. . .

"The Corporation continues as the nation's largest defense contractor, but commercial business represents a steadily growing part of our operations.

"To a degree, the scope and excellence of our defense products obscure the vitality of our other interests. I believe you might be interested in a partial list of the commercial industries in which General Dynamics is involved: aircraft, coal, communications, computer equipment, construction materials, controls and instrumentation, electric motors, electronics, industrial gases, machine tools, nuclear energy, sound equipment.

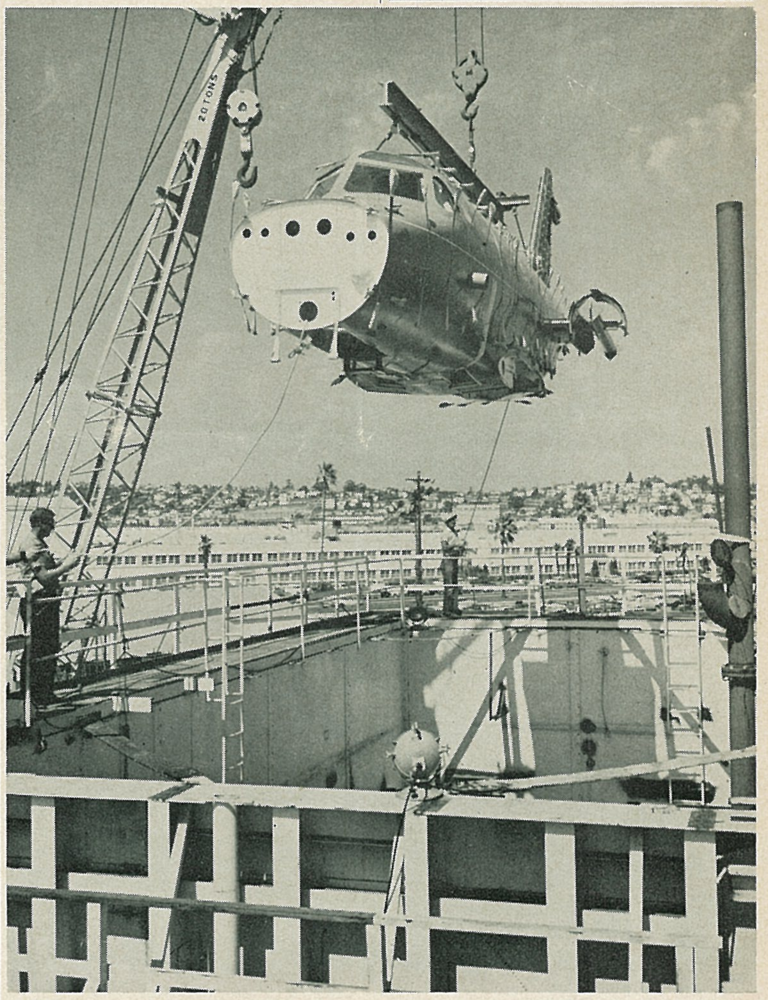
"In some of these our participation, in relation to our overall volume, is not yet large. However, General Dynamics is the largest single producer of carbon dioxide and a very significant factor in the electronics industry."

Regarding General Dynamics' commercial business Pace mentioned the 880/600 program as the most important.

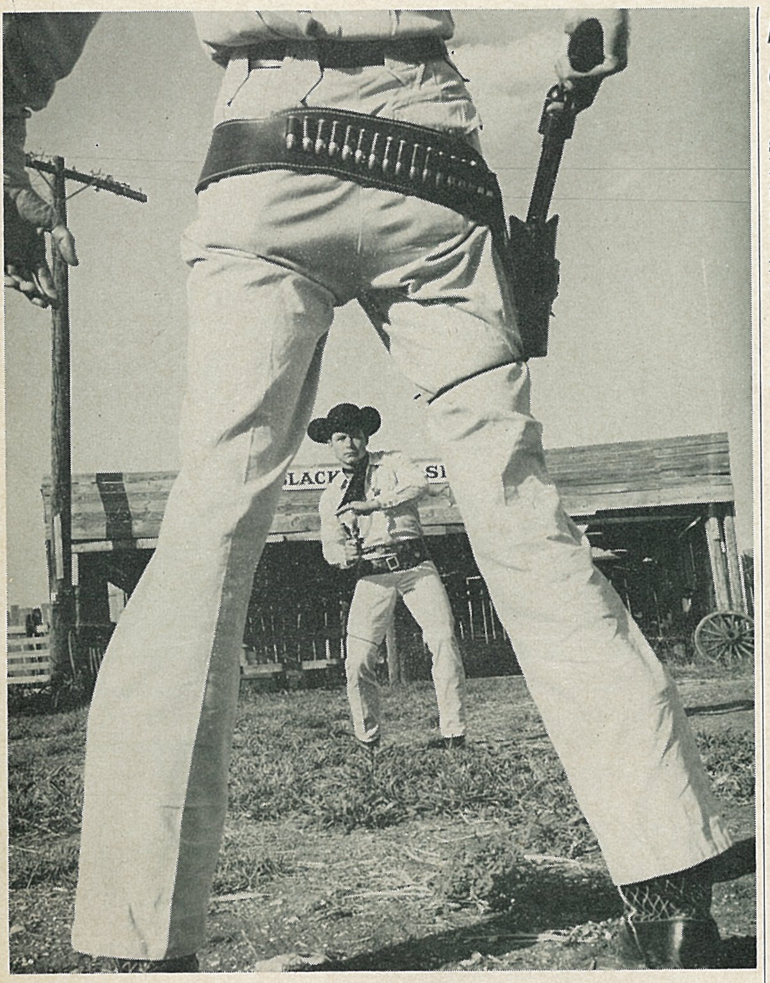
"Research and engineering charges on the 880 phase of the jet transport program are in the rapidly declining stage, although there will be a continuation of development expenses as experience is gained on actual airline usage. Research and development charges on the 880M, a modification of the basic 880, and the 600 will continue at high levels until certification is completed and deliveries begin in 1961. Cumulative charges for research and development, certification and inventory write-offs on the overall Convair 880/600 jet transport program to June 30, 1960, have totaled approximately $100 million.

"Whether the total program will ultimately be a financial success depends upon the volume of additional sales. To date, despite the demonstrated superiority of our planes over competition, the market has not come up to expectations. This is a direct reflection of the current limited ability of the scheduled airline industry to purchase the planes it eventually will need. That temporary factor is affecting all makers of commercial aircraft. Our own aggressive sales efforts, as well as the quality of our product, should assure us

(Continued on Page 4)



DUNKED—North American T-39 fuselage is lowered into Convair SD hydrostatic test tank at seaplane ramp to start several-month test program in 100,000 gallons of water. D. W. Tracy (left foreground) is assigned to project as engineer-diver.



TOP DRAW—Photographer borrowed a camera angle from "Gunsmoke" to make this good picture of Convair FW's Jack Little in act of out-drawing "enemy." Little is local quick-draw champion. His fastest time is less than half a second.

Shoot 'em Up

'Mr. CRA' Physical Culturist Earns 'Top Gun' by Fast Draw

Jack Little of Convair FW mixes bullets and bar-bells with amazing success.

He's Convair FW's perennial "Mr. CRA," having muscled his way to the physical culture crown six times in the past seven years. And out at Fort Worth Fast-Draw Club, Little is known as "Top Gun," a title accorded the fastest from-the-hip marksman in the city.

Magnificently proportioned, the 5-foot, 10-inch, 176-pound Dept. 81 tool maker has earned the CRA title every year since 1955—except for 1959.

In addition, he owns the "Mr. Twin Points" (Beach) title—and has won second and third places in "Mr. Fort Worth" contests.

Little has garnered a mantleful of "shooting" trophies since joining the relatively new Fast-Draw Club a year ago. He's "nicked his man" in what is believed to be a record time locally of .46 of a second.

"That's the time it took me to draw my revolver and pump a wax bullet into a silhouetted target," he said.

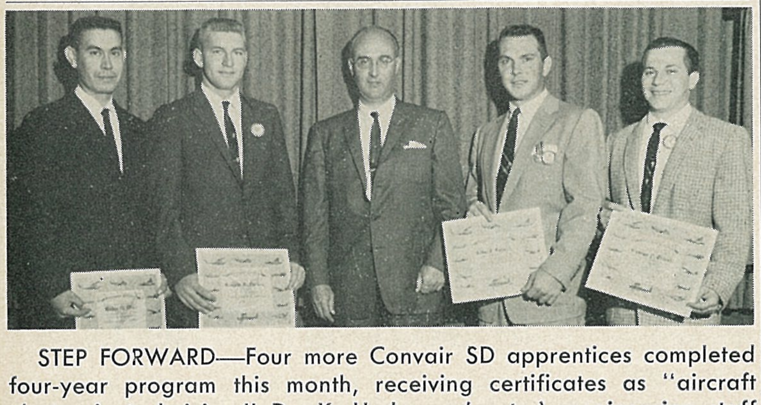
"The 'eyes' of the target light up, which is our cue to fire away," Little said. "And of course you've got to hit the target for your score to count."

Admitting that the Fast-Draw Club might have been inspired by the rash of Westerns occupying TV screens, Little modestly asserts that "lots of our fellows could put some of the TV heroes to shame."

A man who likes to "do things," Little flits from gym to firing range to goodness-knows-where-else in either a '59 Edsel convertible, an Aeriel Square-four motorcycle, or a Piper super cruiser—all of which he owns.



GRADUATES—Four Convair SD apprentices received journeymen certificates recently from E. C. Oertel, chief electronics engineer. From left, they are: Walter Eastin, Roger Casey, electronics technicians, now in Dept. 7; Charles Snyder, aircraft electrician, now with Astronautics; and Edward Lee, aircraft construction mechanic, now completing four-year college course.



STEP FORWARD—Four more Convair SD apprentices completed four-year program this month, receiving certificates as "aircraft electronic technician." Dr. K. Undesser (center), engineering staff specialist, made presentation. From left: Rubin M. Diaz, Ronald B. Varney, Undesser, John F. Lutnick, George D. Trivoli.

Boy Scout Saves Child in River

Even though Danny Royal, 12, son of Astronautics' Gordon S. Royal (Dept. 595-5) narrowly missed qualifying for a Boy Scout merit badge in swimming, a few weeks later Danny showed sufficient skill to save a young girl from possible drowning.

While on a family camping trip on the banks of Oregon's Klamath River, Danny and a young cousin noticed two girls being swept downstream. The girls had been wading when the swift current overpowered and pulled them to midstream. Danny jumped in while the cousin ran for help. Scrambling through the slippery shallows, Danny reached midstream and overtook Carol Olds, 6, pulling her to safety. Meanwhile, his father had raced downstream on foot and entered the water fully clothed to intercept Carol's sister, Kathleen, 9, and pull her ashore.

There is little doubt in the Royal family that Danny will win his merit badge before long.

Navy-Marine Medal Sought For Son Who Displayed Bravery

A Convair Fort Worth son is being recommended for the Navy-Marine Corps Medal after risking his life this month to save an elderly stretcher patient after the helicopter in which they were flying dropped into the Pacific.

He is Donnie R. Smith, an aviation electronics technician, son of Convair FW's G. A. Smith (Dept. 33).

The incident occurred while a Navy crew was evacuating an old man with a broken leg from Kwajalein in the Marshall Islands. The helicopter developed engine trouble, forcing the crew to ditch. In eight-foot swells Smith waited until all others were out, then pushed the patient through a narrow rescue hatch before making his own exit.

Crew members took turns keeping the old man above water for more than two hours before they were picked up. Smith is attached to Helicopter Utility Squadron One, Ream Field, San Diego.

Terrier-Armed Frigate To Dock at San Diego

First guided missile frigate to join the Pacific Fleet, the USS Preble (DLG-15), is scheduled to arrive in San Diego harbor this Friday (Sept. 2).

Preble, which is armed with Terrier surface-to-air guided missiles, will be open to visitors the Sept. 3-4 weekend, the Navy said last week. She will tie up at North Navy Pier, at the foot of Broadway.

A public reception is being planned for the ship's arrival. The 6,000-ton ship, one of 10 Coontz class frigates, will be based in San Diego.

Preble fires her Terriers from a single dual-armed launcher mounted on the stern. The ship is equipped to automatically select her Terriers from magazines below the decks, load and launch them, all in a matter of seconds.

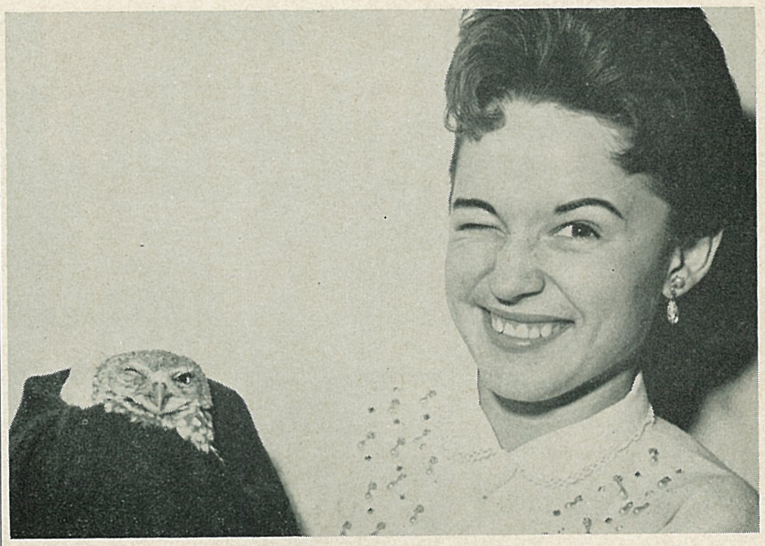
Commercial Business Expanding, Pace Says

(Continued from Page 3)

a significant share of the market that must develop."

Regarding developments at divisions other than Convair, Pace called attention to Stromberg-Carlson's introduction of the "Petite" telephone instrument, featuring compact modern design and illuminated dial. He reported that Material Service Division maintained its operations at a satisfactory level.

Pace reported that the Corporation took a further step into the construction field with establishment at Canadair of an "Architectural Products Division" which is working on an order for curtain-wall panels for a large Montreal office building.



SLY WINK—When wandering owl wandered into Palmdale, Calif., facility recently he consented to pose with attractive Sue Burks (Dept. 320-0) and gave her roguish wink to which she replied in kind. Some say he accompanied this with whistle.

Fire Rescue Teams Drill at SD With New Life Saving Equipment

Trained rescue aid teams, utilizing the latest in life-saving equipment, are streamlining procedures for Convair San Diego's 77-man fire department.

"Our main goal is to have the latest in equipment on hand, and personnel skilled in its use, in the event of any emergency. It is part of a continuing program to include the newest techniques in our in-plant rescue operations," Frank Merritt, chief of industrial security, said last week.

For the past three months fire department personnel have conducted special classes familiarizing supervisors and other plant groups with the department's new rescue capability.

"Purpose is not only to demonstrate the new equipment but also to point out the type of accidents and emergencies that have occurred with a mind toward preventive measures," Lt. Del Dimmitt stated.

First on the list of new equipment is a rescue "suit," actually a pair of coveralls (neck to ankles in length), supported inside by padding and strapping similar in contour to a parachute "seat" and harness.

A victim, unconscious atop a burning building, can be quickly zipped into the suit and lowered to safety.

Fire Chief I. K. Wisley reported that recent additions include a full set of Blackhawk Rescue Equipment. This is a "work chest" containing everything from compact hydraulic jacks for unjamming elevators or doors, and expansion standings (extending to 16 feet) for bracing collapsing walls or doors.

"This equipment has special application in the event a downed pilot is jammed in a plane's cockpit or if a heavy die has pinned a man underneath," Dimmitt said.

A portable electric saw with interchanging blades for every type of cutting operation is included and a Pneolator produced by Mine Safety Appliances. The suitcase-size units can give artificial respiration to two persons at the same time. With a slight rearrangement of connections, the Pneolator can be used as an aspirator, a suction-type apparatus for clearing the throat of a choking victim.

Firemen drill weekly with the rescue equipment. Four crash trucks strategically located at plant facilities are radio-controlled, insuring prompt delivery of equipment in case of emergency.



LOWER AWAY—Fireman P. F. Puckett demonstrates new rescue "suit," recent addition to rescue aid equipment of Convair SD fire department.

Convair Daughter, 18, In Colorado Festival

Lois Rollins, 18, daughter of I. F. Rollins, Convair SD Dept. 98, is performing in the Perry-Mansfield Theatre Festival at Steamboat Springs, Colo., for the second year.

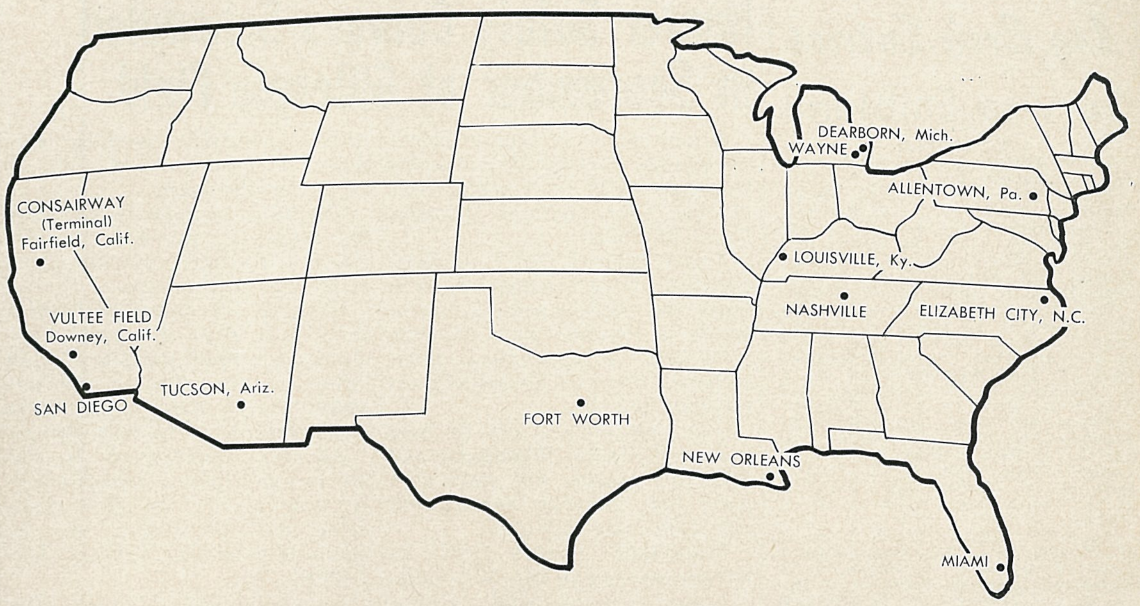
A graduate this year from San Diego High School, Lois has studied dancing for five years, currently under Joey Rigsby, choreographer for dance routines in the Colorado festival. She plans to continue her studies this fall at Knoxville University, Tenn.



RESCUE DISPLAY—Fire department has demonstrated new rescue aid equipment for various plant groups at Convair San Diego. At right is Lt. Del Dimmitt. "Victim" is P. F. Puckett, other firemen assisting are Leon Etheridge and R. McConnell.



PRODUCTION LINES—In top photo is circular mechanized system for building forward fuselage sections of Vengeance airplane at Nashville, known as "merry-go-round." Lower photo shows BT-13 production line at Vultee Field.



FAR FLUNG—During wartime Convair was real giant with divisions dotting map of U.S. from Pacific to Atlantic and Great Lakes to Gulf. Its airline (Consairway) crossed Pacific via Hawaii, Christmas Island, Canton Island, Fiji, New Caledonia, New Guinea.

As Consolidated Vultee Aircraft, Convair Expanded Coast-to-Coast

(Convairiety's continuing history of Convair now has been running for more than a year and a half. This is the 42nd installment.)

During wartime, Vultee Field Division (as it was called after the merger of Consolidated and Vultee Aircraft) concentrated through 1944 on production of Valiant trainers—BT-13s and -15s for the Air Force; SNV-1s and -2s for the Navy. During the winter of 1941, Vultee also turned out 144 P-66 fighters, ordered originally by Sweden in 1939, but finally diverted to China.

Employment reached a peak of 7,748 in November, 1943. After trainer production stopped in 1944 (the last deliveries were made in June), the division turned to manufacture of components for planes produced by sister divisions—B-24 and B-32 bombers, PB4Y-2 patrol bombers and P-38 fighters. The engineering staff in the closing months of the war undertook a series of radical design studies that led to development of the first delta-wing aircraft and some of the guided and ballistic missiles of the mid-50s.

* * *

Vultee Aircraft's division at Wayne, Mich., known as the Stinson Division, shifted from commercial to military production during 1941 and in 1942 began building two types that remained its wartime specialties. First and most widely known was the L-5 Sentinel, a nimble little liaison plane that came to be known around the world as the "Flying Jeep." Production of L-5s totaled 3,598.

The other aircraft was the AT-19 Reliant, a lightened and simplified version of the commercial Reliant, Stinson's best known product of the middle and late 30s. Wartime production totaled 500 AT-19s, most of them for delivery to the British, who used the Reliant as a trainer for navigation officers. Employment at Wayne reached a maximum of 1,989 in July, 1943.

A small, second Michigan division was destined for Dearborn late in 1942 when Consolidated took over the Stout Engineering Laboratories as a research center, largely for development of possible post-war commercial designs. Chairman Tom M. Girdler announced in December that William B. Stout, the veteran aircraft engineer and inventor, had been engaged to devote his full time to this project.

Stout was a man of many innovations, a pioneer in thick-winged monoplane and metal aircraft designs. He developed the Ford tri-motored transport of the 20s, brought out the first of a series of midget "sky cars" in 1931, and also turned his talents to designing new autos, a "railplane" for the Pullman Co., and folding houses.

Activities at Dearborn during the war centered in development of light vehicles designed for convertible use as either planes or autos.

* * *

One of the largest manufacturing divisions was Nashville, where a factory for Stinson had been built in 1940 by the parent Aviation Corp. Several hundred commercial craft were produced there by Stinson. When Vultee Aircraft acquired Stinson as a division in the fall of 1940, manufacture of commercial planes was returned to the old Stinson factory in Michigan and Vultee created Nashville Division to produce military aircraft. The plant was greatly expanded.

Nashville turned out Stinson-designed L-1 Army observation planes through early 1942, while tooling up to make the Vultee Model 72 dive bomber (bought by the British as the Vengeance, and by the Air Force as the A-31 and A-35). The first dive bomber was delivered in March, 1942, and employment reached a high point of 6,500 in December, 1943.

The Vengeance program was phased out in the spring of 1944, with final production totaling about 1,500 dive bombers. The plant was converted to making components for the Lockheed P-38 fighter and finally to assembling complete P-38s. The first Lightning was accepted in January, 1945. Production stopped in June.

American Airlines Reps. Attend Provisioning Session For 600

Twenty-nine overhaul, maintenance, engineering and purchasing representatives from American Airlines are taking part in a six-to-eight week provisioning conference at Convair San Diego for the upcoming 600 jetliner.

The conference, which got under way Aug. 15, will run at least through Sept. 24. Meetings are held in the Bldg. 4 military relations conference room at Plant 1.

During this provisioning period American Airlines will decide which spare parts it will need to support the 25 jet 600s it presently has on order.

Orders for spare parts placed by American Airlines are expected to total approximately $5 million, according to Harold Wolfe, general supervisor of service parts.

Members of the Convair SD service parts staff are assisting and briefing the visitors.

Among conference techniques employed are microfilm integrated data (MID) cards, actually miniatures of every blueprint prepared for the 600, which are flashed on large 8x10-ft. screens. Even portions of blueprints can be emphasized on a "small scanner."

MID-card files are brought up to date as design changes are incorporated on the blueprint vellums.

It Was a Quarter Century Ago That Consolidated Went West

Twenty-five years ago this month Consolidated's engineering department gathered together for a group picture, the last time they would be together, for more than half were scheduled to leave Buffalo soon for San Diego.

The picture was taken outside the old Elmwood plant and eventually all in the group received prints, whether they went to San Diego or remained in Buffalo to work for Bell. The photo is reproduced below. It might have been overlooked as part of Convair's history had not Alan Abels, export sales manager, and a member of the original group, recently made its existence known to **Convairiety**.

"It really was a rather important group at that," Abels remarked last week, "when you consider that from this comparatively small band came the design for the PBY!"

The photo was taken Aug. 12, 1935, and work was shut down at Buffalo four days later and was resumed at San Diego soon after Labor Day. Although transport to the west coast by steamship was considered at one time (**Convairiety**, Feb. 3, 1960) most of Consolidated's material belongings went by rail. Personnel crossed the country by train and by car. The move cost Consolidated about $40,000—a sizable sum in those days.

'Alumni' of Vultee Will Hold Reunion

Final call for one-time Vultee Field employees went out this week on the eve of a special 13th annual gathering.

This year former employees of Vultee Field will meet at the Royal Hawaiian Hotel, Los Angeles, at 4 p.m. Sept. 17. Information on the meeting is available through Wes Magnuson of Astronautics at CY-7-3701, ext. 109.

Exotic Congo Display Supplied by Sabena

Exotic displays of foreign countries may be seen in Convair SD ticket reservations office, second floor of Bldg. 19.

Furnished by airline companies, the displays are changed every month. Current one, sponsored by Sabena, is based on the Congo with items of handwork and photographs of the area.



QUARTER CENTURY AGO—This was Consolidated's engineering department in photo taken at Buffalo 25 years ago this month. Standing (left to right): Joe Gwinn, Bob Wedberg, C. C. Farnsworth, Jack Honour, R. C. Sebold, Bob Hannel, Bill Hlobil, Dr. Merrit Scott, Basil Isham, H. E. Weihmiller, Jack Strickler, Herb Bowers, Joe Dolce, Harry Stromberg, John Baird, Ted Hall, Burr Carroll, Jim Wainwright, Ken Jackman. Kneeling: Al Dolan, Bernie Sheahan, Clint Warner, Bill Schurr, Dick Hager, Abe Kligman, Bud Moerschel, Henry Growald, Sid Avery, Emile Grenier, Jim Kite, Ken Aldrich, I. M. Laddon, Bill Ring, Emile Pelletier, Roy Miller. Sitting: Dave Marshall, Ainsley Phillips, George Clayton, A. W. Abels, R. K. Whitney, Tommy Valvo, Bobby Marshall, Gladys Roy, Frank Learman, Tommy Hemphill, Herb Hinckley, Bob Wolf, Tut Tuttle. Absentees: P. A. Carlson, Henry Mandolf, Frank Holdener, Garner Green, Irving Watts, Milton Aldrich, L. O. Cederwall, Kip Larson, Harry Campbell. This was group responsible for design of famed PBY.

Log Book Entries

Service Emblems

SAN DIEGO

Service emblems due during the period Aug. 16 through Aug. 31.

Twenty-five-year: Dept. 31, Burkley Clemmens; Dept. 160, C. R. Phillips.

Twenty-year: Dept. 6-03, R. A. Bohler; Dept. 8-5, D. J. Markovich; Dept. 14-9, V. J. Norris; Dept. 25, J. W. Hanselman, R. E. Shipman, G. H. Williams; Dept. 31, R. L. Boxley, S. W. Trotter.

Dept. 110, A. C. Matthews; Dept. 120, H. C. Cook, C. L. McNeal, J. P. Ruiz; Dept. 123, E. L. Osborne; Dept. 135, E. D. Buffaloe; Dept. 204, R. S. Sharman; Dept. 232, I. D. Howarter; Dept. 267, K. H. Anderson, O. W. Dickinson; Dept. 401, F. M. Grant Jr., D. D. Klinger.

Fifteen-year: Dept. 25-1, William McFarlane; Dept. 115, C. W. Haffly; Dept. 137, R. A. DeSota; Dept. 140-0, C. A. Larson; Dept. 197-9, C. E. Lemons; Dept. 231, B. M. Bahlmann; Dept. 266, E. R. Shaw; Dept. 292-2, A. M. F. Armijo.

Ten-year: Dept. 3, D. F. Blum, C. W. Hendon, D. C. Musselman; Dept. 6, Esther P. Baker, L. G. Barbee, C. W. Bieberdorf, Lydia M. Curry, R. C. Harris, N. S. Kourbelas, W. R. Moore, H. C. Raptis, R. B. Riggan; Dept. 7, H. D. Dudley, Lorraine S. Zaragoza.

Dept. 14, D. P. Angle, H. V. Herrin, Alice D. Mobley; Dept. 15, W. F. Ashmore, J. M. Hardison; Dept. 21, W. W. Cleveland, A. D. Garner, N. C. Pohle, S. A. Singleton; Dept. 25, A. L. Bodenhamer, W. W. Ford, John Gathard, Joseph McGuffie, R. G. Martin, H. C. Mobley, Carlo Novelle, Hawthorne Pugh, A. J. Tew.

Dept. 31, G. L. Cass, F. J. Chiechi, William Franz, R. D. Harvey, Howard Helsel, F. L. Jaroski, W. A. Leet, T. A. Martinez, Bilbo Miles, J. P. Peffley, T. L. Trammell, R. T. Whitley; Dept. 34-5, E. L. Dierker.

Dept. 44-3, J. F. Scanlon; Dept. 68-0, W. E. Wise; Dept. 93-8, Mary F. Elmore; Dept. 95-0, S. E. Hartzler; Dept. 101, Robert Amador, B. F. Stamps; Dept. 115, S. S. Jenson; Dept. 123, D. W. Cotter; Dept. 137, Harlin Williams; Dept. 138, W. F. Hoover, A. B. MacLean; Dept. 139, D. L. Anderson, R. E. Libby.

Dept. 142, G. E. Haddad; Dept. 144, R. E. Ginepra; Dept. 145, J. E. Peters; Dept. 146, Louis Contreras Jr., R. F. Richter; Dept. 148, J. C. Davis, G. M. Higuchi; Dept. 160, W. E. Linberg; Dept. 170, T. C. Peacock; Dept. 171, R. D. Moran.

Dept. 180, R. B. Armstrong, J. A. Diaz, D. D. Foley, A. U. Kaufenberg, R. F. Robinson, E. M. Salomon; Dept. 188, Anna N. Branom, J. J. Carroll, J. W. Simpson; Dept. 192, E. L. Armstrong, J. F. Bearss, Della Luchessi, H. S. Smith; Dept. 197-1, A. A. Elder.

Dept. 201, Malinda T. Henderson, Elizabeth B. Revy; Dept. 204, Felix Delgado, Dorothy G. Henley; Dept. 215, Blanche C. Vilardi; Dept. 216, Adeline R. Bishop, Emma K. Chaykovsky, Beatrice P. Foote, Arlene R. Hardy, Izora P. Lewis, Meadie L. Mariotti, Eleanore W. Ringer, Muriel H. Warren.

Dept. 217, Marie F. Sweet; Dept. 218, Doris S. Hydoski, G. A. Skurla; Dept. 223, J. R. Puerile; Dept. 230, A. A. Antuk, Electa L. Smith; Dept. 231, Edwin Thompson; Dept. 267, C. M. Bunch; Dept. 271, T. D. Anderson, J. A. Hunter, L. I. Urquidi.

Dept. 280, W. F. Allbaugh; Dept. 288, C. T. Foster, Mary T. Kelly, E. C. Wright Jr.; Dept. 292-1, H. D. Fackrell; Dept. 400-1, J. T. Gilbert, P. B. Holloway, C. A. Miller, J. F. Swenson; Dept. 401, J. G. Moe, Hazel H. Saylor.

HOLLOMAN AFB

Ten-year: Dept. 313-3, T. J. Burger.

PALMDALE

Twenty-year: Dept. 321, W. H. Rumbaugh, D. W. Williams.

Ten-year: Dept. 324-2, David Dietz, J. R. Levell; Dept. 328-2, R. D. Foster.

Promotions

SAN DIEGO

Promotions to or within supervision effective Aug. 15.

Dept. 7-10, Electronics: To asst. electronics group engineer, G. R. Andersen.

Dept. 11-1, Contracts: To contract administrator-military, T. W. Wilcox.

Dept. 97-1, Data Processing: To data processing general supervisor, T. R. Dines. To data processing supervisor, J. A. Hicks, M. H. Jahn.

Dept. 160, Jet Transport Final Assembly: To asst. foreman, W. H. Killingworth.

Personals

SAN DIEGO

To Convair friends, particularly those in Dept. 14-1, I send grateful thanks for the many expressions of kindness, and flowers, sent to my husband, Pete Dodge, while he was in the hospital. Also for the cards of sympathy, beautiful floral tributes, and generous donations to the cancer fund, in his memory.

Maisie Dodge

* * *

We wish to express our deepest appreciation for all the help, sympathy, and floral tributes received from our Convair friends in Depts. 6 and 31 at the loss of our son, Phillip Grady Scott.

Otis C. Roberts Jr., Dept. 6
Mrs. Otis C. Roberts Jr., Dept. 331

Retirements

SAN DIEGO

MADDOCKS—William G., Dept. 25. Seniority date Nov. 17, 1950, retirement effective Aug. 20, 1960.

PFAU—Walter O., Dept. 401. Seniority date Aug. 10, 1950, retirement effective Aug. 13, 1960.

WASHINGTON—Harold, Dept. 401-4. Seniority date Aug. 1, 1941, retirement effective Aug. 20, 1960.

Births

SAN DIEGO

HAGBLOM—Son, William Douglas, 8 lbs., born July 21 to Mr. and Mrs. Douglas Hagblom, Dept. 146.

RUBALCABA—Daughter, 5 lbs., 7 oz., born Aug. 21 to Mr. and Mrs. Julian Rubalcaba, Dept. 135.

SLOBIG—Son, Anthony Joseph, 5 lbs., 4 oz., born Aug. 2 to Mr. and Mrs. H. T. Slobig, Dept. 180.

WEAVER—Daughter, Ann Marie, 6 lbs., 8½ oz., born Aug. 10 to Mr. and Mrs. Harry W. Weaver, Dept. 15-3.

PALMDALE

MAYFIELD—Daughter, Melanie Gay, 7 lbs., 11 oz., born Aug. 16 to Mr. and Mrs. C. C. Mayfield, Dept. 321-1.

Hunter Safety Courses Scheduled In September at Gillespie Field

A new series of hunter safety courses for Convair SD and Astro youngsters will start next month at the CRA Range, Gillespie Field, El Cajon.

Arnold Schrock (SD Dept. 180), certified NRA instructor, will teach the CRA-sponsored course which is required by California state law for all persons under 16 before they will be issued their hunting licenses.

The first course will be held Sept. 7, 8 and 10. Wednesday and Thursday classes will start at 7 p.m.; the Saturday session will get under way at 9 a.m.

Weeknight classes will be lecture sessions in the CRA Clubhouse. Saturday morning students will handle and fire .22 rifles and shotguns.

The second course is scheduled for Sept. 12, 14, and 17. All times and places are the same as for the first course.

Students are asked to furnish their own guns if possible, although a limited number of club rifles are available. A 50¢ fee, which covers book, ammunition and brassard, is the only charge.

Advance registration is not necessary. Students should merely show up for the first class. Additional information can be obtained by calling Schrock, BR-7-4958.

Ice Skating Groups Map Plans For Weekend Trip to Big Bear

Convair SD Ice Skating Club and the Astro-blades are making plans for a weekend trip to Big Bear Lake Sept. 24-25.

A variety of activities are on tap for those participating, with the Saturday program including an afternoon of skating or swimming, a barbecue supper, and dancing in the evening.

More skating is planned for Sunday with a ride on the two-mile scenic chair lift on the afternoon agenda.

CRA commissioners at Convair SD and Astro will arrange overnight accommodations when reservations are placed. Facilities available range from two-to-five person lodge rooms with bath, to housekeeping cabins complete with kitchens.

Transportation is to be arranged on an individual basis, and maps and instructions for the 155-mile drive will be furnished to all participants.

Reservations may be made with Martha Woodberry, ext. 1245 at Plant 1, or Bud Davies, ext. 3441 at Astro before Sept. 8

50 Speakers, Ladies At Dinner Meeting

Fifty Toastmasters and their ladies from the Convair and NEL groups joined in a poolside dinner meeting Aug. 19 at Rancho Presidio Hotel.

Chairmanning the affair was James Carr of Astro, president of the Convair group. Other Convair members taking part were Earl Erickson (Dept. 6), topic master; Ken Samples and Duane Johnson, both of SD Dept. 6, evaluators. Representing the Convair club as speakers were Don O'Neil (Dept. 7) and Chuck Willits (Dept. 6).

RIFLE 'SIGHT IN' SCHEDULED SUNDAY

Hunters from Convair San Diego and Astronautics will have an opportunity to "sight in" rifles free of charge Sunday (Sept. 11) at 1 p.m. at the Lemon Grove Rod and Gun Club.

Deer hunters, in particular, will want to take advantage of this opportunity. Instructors will be on hand to assist. To reach the Lemon Grove facility take Hwy. 80 to Alpine, turn right on Tavern Rd., right again on Dehesa Rd., travel one mile past "Cleveland National Forest" sign to range.

Next meeting of the Convair Gun Club will be held Tuesday (Sept. 13) at 7:30 p.m., CRA Clubhouse, Gillespie Field. An "exceptionally fine" color film on deer, elk and bear hunting in Wyoming will be shown, according to Jack Swank, SD CRA commissioner.

PHOTO PURCHASING SYSTEM RESUMED

Photo service for employees wishing to purchase prints of pictures which have appeared in **Convairiety** has been resumed by SD employee services. Those who order must first have negative numbers, which can be obtained through **Convairiety**, ext. 1071.

Deaths

SAN DIEGO

LIEBELT—Beuhl E., Dept. 93-2. Survived by parents, Mr. and Mrs. Emanual Liebelt.

WATTS—Ernest W., Dept. 400. Died Aug. 12. Survived by wife, Doris; four stepsons, Morley, Oris, Gordon and Vernon.

Fish Contest Entries Open

Glenn Grantham (Dept. 102) claimed first prize in the July fishing contest with a 9-lb., 8-oz. bonita.

In fact, his was the only entry, R. W. Menzie, commissioner, reports. "We definitely want to encourage all Convair fishermen to enter their catches in the monthly contests," Menzie said.

Three prizes are offered each month, worth $15, $10 and $5. Fresh and salt water catches are judged on a percentage basis. Entry blanks are available at employee services, Plants 1 and 2. Registration must be made by the fifth of month following the catch.

Approximately 80 persons attended the August Fishing Club meeting. Menzie said door prize winners were Gunnard Peterson (Dept. 31) and Joe Spoko (Dept. 25).

Next meeting is planned Sept. 20 at 7:30 p.m. in the Gillespie Field CRA Clubhouse. Arrangements will be discussed for the annual Father-Son Fishing Trip.

Model Railroaders Attend Convention

Two members of Convair SD Model Railroad Club attended the national convention of model railroaders last week (Aug. 24-28) in Chicago, Ill.

Karl Busch (Dept. 15-6) and George Overlin (Dept. 188-2) both took active parts in the convention which commemorated the national organization's 25th anniversary. Busch attended in his capacity as editor of the "Bulletin," national model railroaders publication. Overlin acted as one of the judges for the model contest.

Both are past presidents of the CRA group.

Shop League Teams Enter City Tourney

Convair pitcher Chuck Ivy last week threw a no-hit, no-run game to lead Dept. 135 Fuselage to a 6-0 victory over Astro Dept. 527-3 in the opening contest of the post-season Industrial League Tournament.

SD Dept. 280 lost its first tourney tilt to Astro Dept. 776, 13-8. Both of the SD entries finished in first place in their respective shop leagues. At conclusion of tournament they will meet in best two-out-of-three game series to decide plant championship.

Tryouts Scheduled For Baseball Team

Practice and tryouts for a Convair San Diego city league baseball team will be held at 10 a.m. Sunday (Sept. 11) and Sunday (Sept. 18).

All interested Convair players are invited to try out at the sessions which will be held at the Mission Bay Youth Field, immediately east of Mission Bay High School.

Depending on caliber of players, the squad may be entered in the American League, top San Diego city hardball circuit, according to Pete Beyrer, commissioner.

World Trip Slides Scheduled in Park

Interested Convair SD and Astro persons are invited to view a collection of 5,000 color slides taken by a San Diego couple during a 10-month tour of the world.

The program is being sponsored by the Industrial Recreation Council. Slide programs are being held in the Puppet Theater, Balboa Park, between 7:30 and 9:30 p.m. on the following days:

Sept. 6: Iran, Syria, Lebanon, Egypt, Turkey; Sept. 13: Greece, Italy, Sicily, Capri; Sept. 20: Italy, Spain, French Riviera; Sept. 26: Spain, Morocco, Portugal, Gibralter; Oct. 4: France, Holland, Belgium; Oct. 11: West Germany, Austria, Switzerland, Denmark.

No admission will be charged, but a collection will be taken at each showing. For further information call Otto Ketelsen, CY-6-3422.

Deer Hunt Contest Entries Now Open

Entry forms for a deer hunting contest extending through Nov. 30 are available at Convair SD and Astro employee services locations.

Sponsored by the Industrial Recreation Council, contest winners in three districts will be able to have their deer heads mounted (maximum cost $50). Antlers will be measured for width only.

Each entrant will be eligible for only one award. A $1 entry fee must be made prior to the hunting trip. Entry forms list eligibility requirements.

Boating Instruction Starts This Month

A new series of free boating and piloting classes conducted by the San Diego Power Squadron will be open to all interested Convair folk starting Sept. 12.

Evening classes, starting at 7:30 p.m., will cover equipment and government regulations, aids to navigation, charts and piloting, Rules of the Road afloat, seamanship, manners and customs on shipboard.

Opening dates and locations are as follows: Clairemont High School (Sept. 12); Helix High School (Sept. 13); Cabrillo School (Sept. 14); Sweetwater High School (Sept. 15). For further information call AC-2-3397 or AC-2-3288.

SD Hams Distribute Directory for 1960

Distribution of Convair SD Radio Club's 1960 ham directory was expected to be completed this week, J. B. Baker, commissioner, reports.

The directory lists almost 150 licensed Convair radio operators in both call and cross-file. The cover, which features a line drawing of the 880 jetliner, was designed by E. L. "Gene" Knowles. Club member Ed Warns was editor.

A family picnic and potluck dinner at Pecan Park is the next scheduled social event. Members are asked to bring their own food and refreshments to the Saturday (Sept. 10) affair.

Trailer Rally Entries Open

Convair SD's travel trailer group, the Road Runners, will take part in the second annual Trailer Rally at the Del Mar Fairgrounds Sept. 29 through Oct. 2.

The event is again being staged by the Border District, Travel Trailer Clubs of America. A $1.50 cost per night for each trailer will be charged. Participants should bring a 50-ft. electric cord, water hose with "Y" connection, drain pail and a table and chairs.

All travel trailer owners are invited, not just those affiliated with a club. Registration deadline for Convair members and others wishing to be guests of members is Sept. 15. Mrs. Carl Cooper, 4646 Nebo Dr., La Mesa, is handling reservations. Check or money order should be made payable to Border District, T.T.C.A.

Entry forms and additional information can be obtained by contacting Pete Beyrer of the CRA office, ext. 1245, Plant 1.

EAGLES NEAR TOP OF A LEAGUE PLAY

Convair Eagles at Palmdale stood tied for first place in the A Minor league play following their Aug. 22 tilt with McDonnell Aircraft.

Convair players downed Lancaster All-Stars 14 to 4 on Aug. 10, collecting 15 hits. They defeated Ledger-Gazette 6-3 in Aug. 18 play and lost a close one to McDonnell, 6-5, Aug. 22.

In AA play Convair Interceptors won three and lost two in second-round games this month. They blanked Rinky Dinks, 7-0, Aug. 4; beat North American, 6-1, on Aug. 16; and took their Aug. 22 battle with Industrial Asphalt, 2-1. Rinky Dinks came back to win, 4-3, Aug. 9, and Industrial Asphalt scored the winning run Aug. 18 to take the 2-1 game.

Fine Arts Theater Offers Cut Prices

Convair SD and Astro moviegoers can obtain reduced rates at all Tuesday evening performances at the Academy Fine Arts Theater, 3721 University Ave.

Except for Saturday and Sunday matinees theater fare is devoted exclusively to "art-type" motion pictures, both Hollywood and foreign.

Tuesday evening Convair prices are 50¢ for adults, 25¢ for children. On Tuesday (Sept. 6) the Academy Theater will screen the first San Diego run of the "Savage Eye," winner of various film honors including a special achievement award at the Venice Film Festival.

Olsen Tops Entries To Win Links Tourney

R. A. Olsen walked away with low score in the CRA handicap golf tourney at Convair Palmdale Aug. 20.

Olsen (Dept. 321-1) shot a six under par net 48 on 18 holes at Harry's Short Course, Lancaster. A three-way tie for second place saw J. L. Carton (Dept. 326), W. H. Rumbaugh (Dept. 321-0), and C. C. Baker (Dept. 321-1) bunched with net 51s. Rumbaugh chopped a point off his score to take the playoff with a net 50. Carton stood third with a 54.

Tennis Tournament Set in September

Annual Fall Tennis Tournament sponsored by Astronautics' CRA is scheduled Sept. 10-11 and 17-18 on the Morley Field courts in Balboa Park.

Both Convair SD and Astro netters are invited to participate. Men's and women's singles and doubles brackets are planned. Trophies will go to winners. To place entries, call Beverly Griffith, ext. 3125, Astro.

CRA Sports & Recreation Convairiety

Hoedowners Change Locations; Plan New Class for Beginners

New locations for all CRA square dancing and starting dates for a new beginners' class have been announced by Hoedowners' Commissioner Maury Scholz.

Starting in September all Tuesday evening advanced classes will be held in the American Legion Hall, 4061 Fairmount Ave. Fourth - Saturday - of - the - month party nights will be held at the same location.

A new square dancing class for beginners will be launched Sept. 14, 21 and 28. Registrations will be taken at each of the first three classes, which will be held at the Uptown Hall, 30th and Meade Ave.

This will be the only opportunity for Convair beginners to enroll during the next year, Scholz said. Weekly Wednesday 8 p.m. classes will be held for a 30-36-week period.

"We feel this longer schedule will give beginners a much better chance to lay the foundation for maximum enjoyment of square dancing and, at the same time, we will avoid holding classes during the slack, summer season," Scholz added.

All SD folk and family members are invited to register for the class. Regular club instructor Don Browne will conduct the classes; both couples and singles are welcome.

The course will cover all fundamentals and take dancers up to the intermediate stage. For further information, call Scholz, ext. 2916, Plant 1, or CY-5-3806.

CRA Calendar

(Convair SD Recreation Association has some 40 activities in operation. For information on SD sports, call CRA headquarters, ext. 1245, Plant 1.)

★ ★ ★

BASEBALL—Tryouts for city league team Sundays, (Sept. 11-18) 10 a.m., Mission Bay Youth Field. Call Pete Beyrer, ext. 1245, Plant 1.

BOWLING—Few openings still remain for winter leagues. Call Jim Hayman, ext. 1155, Plant 1, or Mike Brooks, HO-9-8793.

BRIDGE CLUB—Next session Tuesday (Sept. 6), 7:30 p.m., Hotel Barcelona, 326 Juniper St.

CAMERA CLUB—Meeting (Sept. 12), 7:30 p.m., Photo Arts Bldg., Spanish Village, Balboa Park.

DELTA DIVERS—Weekend trip to Santo Tomas, Sept. 10-11. Make reservations with Harry Ruscigno, ext. 2348, Plant 1.

GOLF CLUB—CRA match play tourney, Circle R course, Sept. 11-18-25.

GUN CLUB—Meeting Sept. 13, 7:30 p.m., CRA Clubhouse, Gillespie Field. Free rifle "sight-in" Sept. 11, 1 p.m., Lemon Grove Rod and Gun Club. Hunter safety course starts 7 p.m., Sept. 7, at Gillespie Field. Call Arnold Schrock, BR-7-4958.

FISHING CLUB—Meeting 7:30 p.m., Sept. 20, CRA Clubhouse, Gillespie Field.

ICE SKATING—Reservations for weekend trip to Big Bear Lake taken until Sept. 8 at CRA office, ext. 1245, Plant 1. Trip scheduled Sept. 24-25.

MOVIES—Reduced-price movies Tuesday evenings at Academy Theater, 3721 University Ave. Adults, 50¢; children, 25¢.

RADIO CLUB—Meeting tomorrow (Sept. 1), 7:30 p.m., Harbor Drive headquarters. Family potluck Saturday (Sept. 10), Pecan Park.

RIDING CLUB—Meeting Thursday (Sept. 8), 7:30 p.m., CRA Clubhouse, Gillespie Field.

ROAD RUNNERS—Registration taken until Sept. 15 for Trailer Rally, Del Mar Fairgrounds, Sept. 29-Oct. 2. Call Pete Beyrer, ext. 1245, Plant 1.

SPORTS CAR CLUB—Meeting Wednesday (Sept. 7), 7:30 p.m., Natural History Museum, Balboa Park.

SQUARE DANCING—New beginning class starts Sept. 14, 8 p.m., Uptown Hall, 30th and Meade Ave.

SWIMMING—Family night postponed to Saturday evening (Sept. 10), Mission Beach Plunge, 7-9:30 p.m. Free tickets at SD employee services, both plants.

TENNIS—Fall tennis tourney, Morley Field, Balboa Park, Sept. 10-11, 17-18. Entries taken by Beverly Griffith, ext. 3125, Astro site.

WATER SKI CLUB—Skiing sessions, free instructions, Saturdays and Sundays, 9 a.m. to 1 p.m., Tierra del Fuego, Mission Bay.

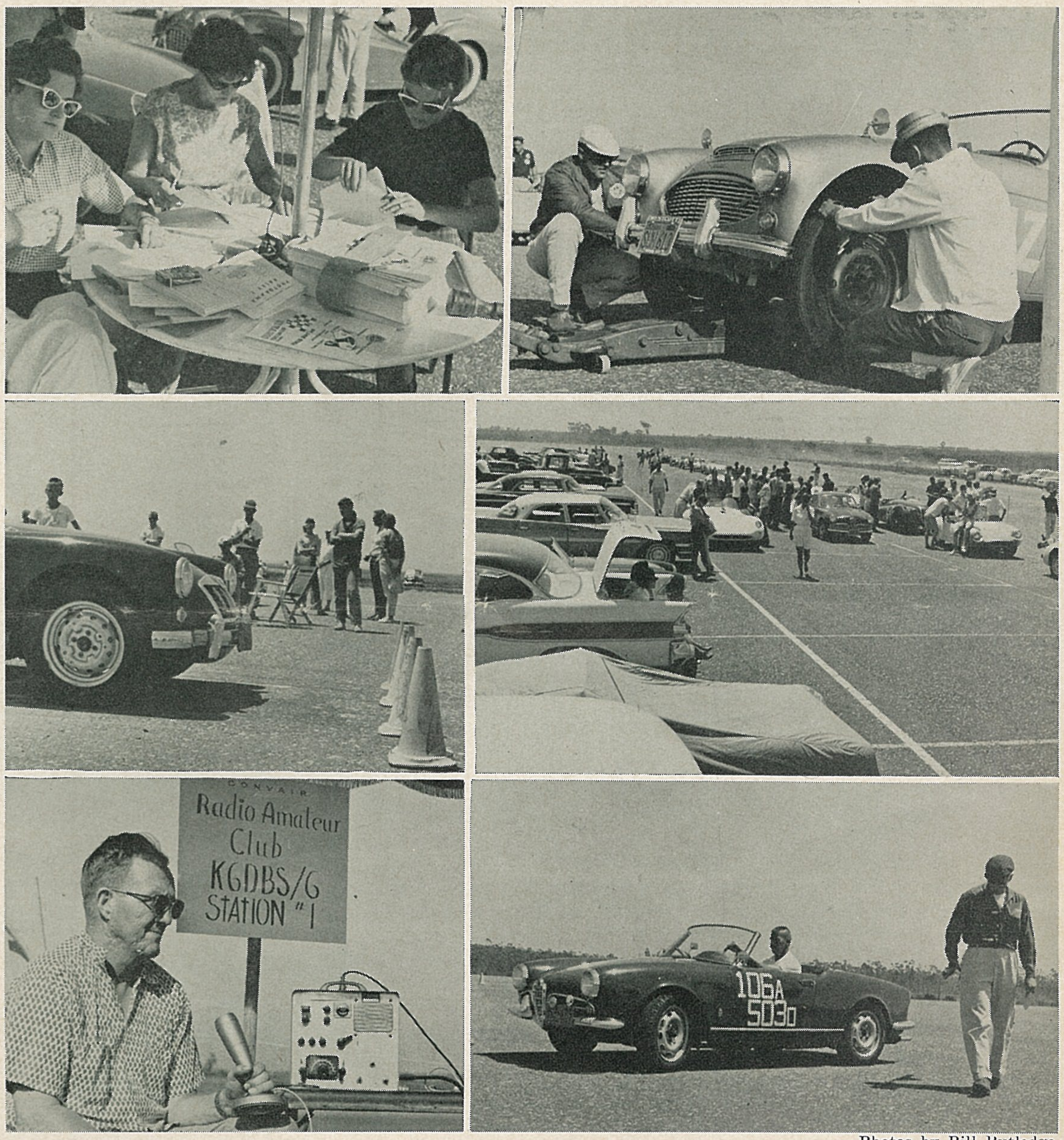
WOMEN'S ACTIVITIES—Registration open for beginners' charm school starting Sept. 20. Call Martha Woodberry, ext. 1245, Plant 1.

BROADWAY SWEEPS SD PISTOL MATCH

B. L. Broadway (Dept. 115) scored 291 points to win the police course event at a Convair SD Pistol Club shoot Aug. 14. His 280 score also won the short national.

Ranked second in the master class with 287 points was Ash Bishop (Dept. 401-5), followed by Jim Halfacre (Dept. 180) with 285.

Ralph Picard (Dept. 7) and Bill Dittmann (Dept. 6) placed first and second in the expert category with 280 and 274 points respectively. Harvey Ingalls (Dept. 6) was top sharpshooter with 261 points. Chuck Bishop (son of Ash Bishop) notched a 191 score to lead the marksmen class.



—Photos by Bill Rutledge.

CAR CAPERS—Field Day '60, conducted by Convair SD Sports Car Club Aug. 13, drew about 100 entries, many from Los Angeles area. Some 40 club members handled various field day events. Top photos show Convair wives taking registrations and car being safety checked. In center, car finishes acceleration and braking test, others line up for time trials around Hourglass Field. At bottom left Louis Rush of CRA Radio Club operates communication station. At right Bob Dunn starts car in slalom.

97 Enter SD Field Day, Championship Car Event

Almost 50 members of Convair SD Sports Car Club helped stage "Field Day '60," a championship event that drew 97 entries, including 20 from the Los Angeles area.

The field day was chairmanned by Tom Kienholz (Dept. 6) and each entrant was allowed to participate in three of the four events.

Wally Edwards (SD Dept. 6), a non-club member, posted fastest times in the time trials and acceleration and braking events. His winning time on the Hourglass Field racing course was 3 minutes, 26.2 seconds. He accelerated and braked in 21.2 seconds.

Gymkhana winner was S. Stevenin of Ryan Sports Car Club in 2 minutes, 52.2 seconds. Dr. C. G. Thompson of La Jolla Sports Car Club whipped through the slalom in 2 minutes, 29.0 seconds.

Overall award winners, based on highest number of points earned for three events entered, were Thompson and Wes McMillan of Southern California MG Club, who tied with 280 points.

Trophies were given to top ten drivers in each event, the next five finishers received dash plaques.

Communications during the field day were handled by members of Convair SD Radio Club who reported errors and disqualifications.

Station operators were Wayne Hetzler (K6ITA), Fred Sickler (WV6GLK), J. B. Baker (W6-TVM), Louis D. "Red" Rush (K6QXM), Jeanne Walker (WA6-FTZ), James Lack (WA6CYD), and Dave Pinal (WA6AUK).

Next meeting of the SD Sports Car Club is planned Wednesday (Sept. 7), at 7:30 p.m. in the Natural History Museum, Balboa Park.

A good number of SD sports car drivers are expected to participate in the "Rally of the Stars" Sept. 18 hosted by Palomar Sports Car Club.

First cars will start at 6 a.m. from Escondido Bowl for the 8-hour rally up Palomar Mountain. For entry forms, contact Bill Rutledge, ext. 715, Plant 1.



NEW LOOK—Edith Antelline, SD charm school instructor, shows Mary Hardy (Dept. 3) proper way to apply makeup in preview of beginning CRA-sponsored charm course which starts Sept. 20 in new cafeteria at Plant 1. Enrollments are being taken at SD employee services.

'Li'l Abner' Seats On Sale Tomorrow

Reduced-price tickets to the last Star-Light Opera production, "Li'l Abner," go on sale tomorrow (Sept. 1) at Convair SD employee services, both plants.

Through CRA arrangements, discount price for the Sunday (Sept. 11) performance is $2.45 for regular $3.50 seats.

1,500 Attend Summer Show

Eight Convair SD flower growers won best-of-show honors at the CRA Garden Club Summer Show Aug. 14.

An estimated 1,500 viewed 170 entries on display in the Balboa Park Floral Association Bldg. As expected, dahlias drew the largest representation, with an even 100 blooms exhibited.

Both best dahlia and smallest dahlia awards were taken by Mr. and Mrs. C. H. Splinter (Dept. 1-16). E. L. Zimmerman, Garden Club commissioner, picked off the prize for the largest bloom.

Other top show honors went to Mrs. F. M. Hart (Dept. 44-3), corsage; Mrs. R. A. Freedman (Dept. 6), arrangement; H. S. Boyd (Dept. 31), citrus (oranges); Jean Henderson (Dept. 401), deciduous (peaches); Ben Anello (Dept. 207), vegetables (peppers).

Additional ribbon-winning dahlias in the different divisions were entered by Ila Coleman (Dept. 288-2); E. W. Coleman Astro Dept. 344-3); R. L. Schahn (Dept. 188-5), and Arnold Carrol (Dept. 180).

Other winners in the vegetable division were Mike (Dept. 218), Carla and Richard Alianelli; Angeline (Dept. 204) and Ben Anello; A. E. Brennen (Dept. 232) and H. S. Boyd.

In the children's division Janice and Dennis Zimmerman (children of E. L. Zimmerman, Dept. 401) swept first-place awards in their respective age groups.

SD Las Vegas Trip Slated in October

Another CRA-sponsored trip to Las Vegas is scheduled Oct. 7-8-9. Reservations will be accepted at employee services, Plants 1 and 2, starting Tuesday (Sept. 6).

A $20 registration fee will cover transportation costs and accommodations at the Stardust Hotel. Motor coaches will leave the Bldg. 19 parking lot at 5:30 p.m. Friday (Oct. 7).

Reservations are presently being planned for 76 travelers.

New Two-Component Pod Gives Hustler Added Speed and Range

A new two-component disposable pod that gives the supersonic B-58 Hustler bomber added speed and range is now in production at Convair FW.

Earlier B-58s are equipped with a single disposable armanent pod designed to be dropped with its nuclear bomb. The concept obviates the necessity for hauling useless, empty space within the aircraft after bombs have been dropped or fuel exhausted.

Convair reported that the lower portion of the new dual pod, which carries part of the fuel for the B-58's four jet engines, can be dropped when that portion of the fuel load is exhausted. This improves performance on the way to target.

The Mach 2 B-58 in actual combat would fly on to the target to drop the upper portion of the pod carrying the payload.

Thus stripped of both portions of the pod, the bomber then would use fuel in the wing tanks to return to base.

Disposing of both portions of the pod serves to further reduce the Hustler's drag, thus giving it both added speed and added range for the return.

Frank W. Davis, Convair vice president and Fort Worth plant manager, said the new pod is capable of use for either high- or low-altitude missions. (The B-58 has made numerous flights demonstrating its capability at altitudes of less than 500 feet. At such an altitude, it is extremely difficult for enemy radar to detect the B-58's penetration of enemy territory.)

Extensive tests to "test separation and ballistic characteristics of the pod" will be carried out at Kirtland AFB.

Pod drops will be made at White Sands Missile Range, N.M., and Tonopah Test Range in Nevada, according to Jim Graham, who heads up the overall pod-drop program.

Air Force is scheduled to use Hustler No. 22 to conduct performance tests at Edwards AFB.

Convair FW personnel at Kirtland AFB in New Mexico are stepping up activity.

A Hustler nose dock, constructed at FW and shipped to Kirtland in a railway gondola car, was recently installed.

J. R. Hammond and C. D. Sipes, Dept. 25, re-erected the dock at Kirtland doing "an excellent job in record time," reports W. T. Abbott, test base manager.

Meanwhile, Pod Team Captain Jim Graham says modification of Hustlers No. 4 and 38 for two-component pod testing is nearing completion.



PIGGY-BACK—A new two-part disposable pod has been added to supersonic B-58. New component is shown alongside B-58 equipped with original single pod. Fuel-carrying lower portion of pod can be dropped when supply is exhausted, increasing aircraft's performance en route to target. In combat, B-58 would fly on to target with upper pod carrying nuclear bomb.

Dummies Successfully Ejected Via 'Sled' Seat

Action has shifted to Holloman AFB, New Mexico, in the test program involving the Convair-developed sled-type ejection seat for the F-106.

In three airborne tests this month dummies have been successfully ejected from the aft cockpit of an F-106B piloted by Air Force Capt. G. D. Hendrix at speeds up to Mach 1.74. Seats and dummy pilots were ejected from the plane at altitudes up to 35,000 feet. Dummy and seat were separated and drogue chute opened at 16,000 feet. A lower speed and altitude ejection test was scheduled for the end of this month with all of the seven ejections on the program to be completed by the middle of September, said Hugo Mohrlock of Model 8 project office.

Convair San Diego personnel assigned to Holloman facility are busy setting the stage for climax of the program this fall when humans will be ejected from the seat for the first time. Air Force officers will be subjects for human experiments with four ejections during October.

Before they get into actual flight tests at Holloman, the AF men will be dropped in the seat from a C-130 over El Centro, Calif.

Test results are going directly to Convair SD mechanisms design group for use in checkout of changes or modifications, if any are required, explained Mohrlock. Heading mechanisms group working on the project is D. A. Liebel, currently responsible for design and development of the seat destined to go into production F-106s.

Pilots Checked In Seat Trainer

An Air Force trainer for the F-106 supersonic ejection seat has been undergoing adjustment at Convair Palmdale since July and during the interval a number of Convair and Air Force pilots have gone through the motions of ejection in it.

Although the speed at which the trainer functions is much slower than the actual firing sequence, a realistic "ride" is possible up to the point of separation from the aircraft.

The trainer operates with air pressure supplied by its own compressor unit. It was returned to the Air Force this month for use in familiarizing both pilots and maintenance personnel. The seat type is one that ultimately will equip all F-106s.

Coordinators Attend Training Conference

Coordinators of Convair San Diego and Astronautics training with industry programs were among representatives from 10 companies attending a conference at North American Aviation, Inc., in Los Angeles Aug. 11.

Mark Saunders of Convair SD and Emory Thurston of Astro educational services took part in the one-day round table discussion of various types of training with industry programs conducted by the companies. Others were from Douglas Aircraft, North American Rocketdyne Division, Aerojet-General, Rheem Mfg., North American Aviation, Lockheed, Norair, and Northrop.

Inter-Division Data System Now Complete

Final unit of Convair's high temperature structures research laboratories has been installed to complete the $1-million electronically-controlled information system for the inter-division facility.

Culminating a year-and-a-half of research, design, and construction, a $234,000 load programmer was put into operation this month at the research laboratories' seaplane ramp location in San Diego, announced E. F. Strong, in charge of Convair SD structures laboratories.

The load programmer joins the heat programmer and data acquisition and interpretation system (DAISY) installed last spring in the control building (**Convairiety**, May 13, 1959).

Developed specifically to fit Convair's needs, the new unit makes it possible to apply loads to structures on a "true-time" basis, explained A. R. Vollmecke, assistant group engineer.

"We now can gather information in the flash of time—as short, in some instances, as five or six seconds—that a plane or space vehicle would be affected by a specific aerodynamic condition," said Vollmecke.

Also, the load programmer increases the research laboratories' capability to test structures under load and heat simultaneously, such as extreme temperatures and pressures encountered by high speed aircraft, missiles, and space vehicles.

An analog computer, the programmer automatically corrects itself, and allows full control of structural testing at all times. Entire loading and unloading time has been cut from the three hours needed in the former static testing method to a few seconds.

Richard Gilbert, SD research test engineer, is credited with design and development of the load programmer, manufactured to Convair specifications by Research, Inc., Hopkins, Minn. He also designed the large pump installation in the enclosed testing facility which doubles the supply of hydraulic power.

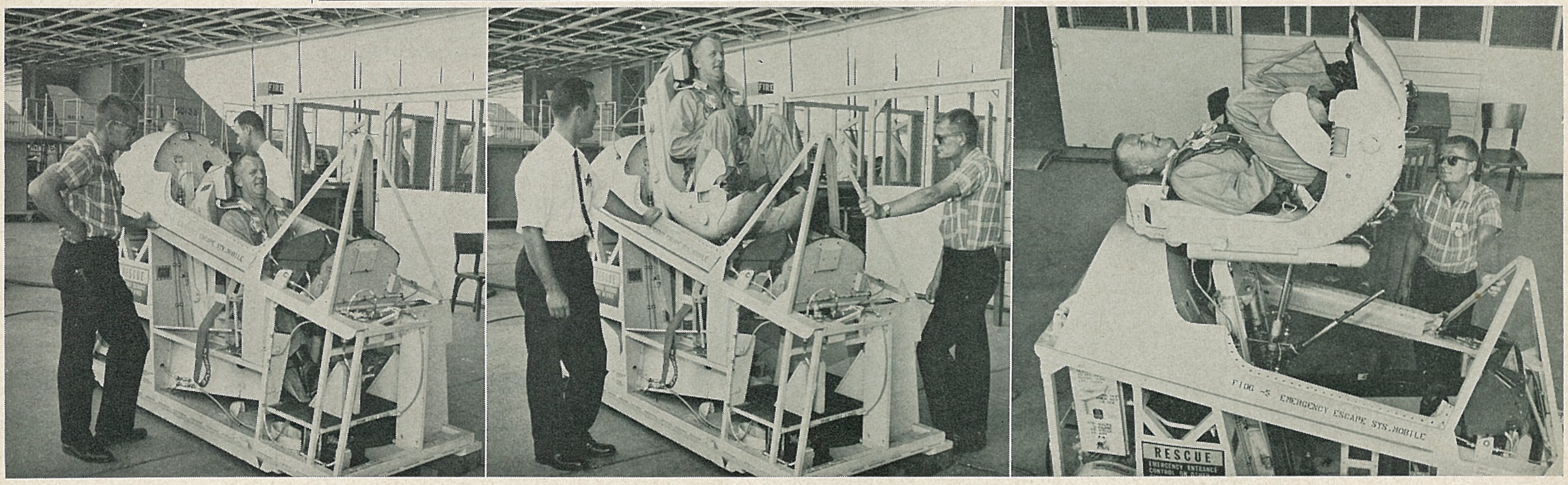
A master control console integrating the three major electronic systems in the control room, was designed by H. A. Buehler, also Convair SD research test engineer.

The entire information-gathering system has been under design and development at Convair SD during the last four years. Instrumental in planning and installation was W. E. Wise, group engineer until recently when he went on special assignment in the Model 8 project office.

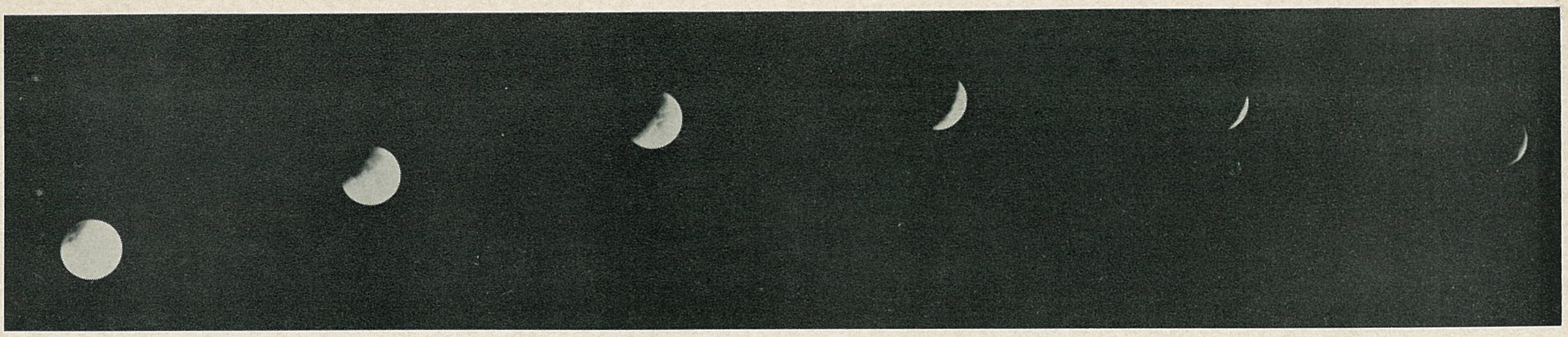
The Convair high temperature structures research laboratories $2-million facility was completed in May of last year. Besides the control and administration building it consists of large enclosed and outside test areas. It is available for structural tests of any Convair division.



REMOTE CONTROL—Herb Buehler, at master control console in Convair's high temperature structures research laboratories, keeps in close touch with testing in adjoining building by closed circuit television and microphone. In background, Richard Gilbert adjusts controls of new load programmer unit.



UP AND OOP—Bob Myrann, Palmdale chief pilot, checks out in F-106 ejection seat trainer at Palmdale. J. R. Campbell (Dept. 326), project coordinator, (in plaid shirt) and R. M. Zeich (Dept. 6), modification engineering, observe. Note how seat rises, then tilts backward to position for leaving aircraft, feet first.



GOING, GOING, GONE—Dramatic sequence showing full eclipse of moon early this month was shot by Ben F. Dalbo of Convair SD photo lab. Multiple exposure (on one negative) stopped moon six times at 25th of second using 4x5 Speed Graphic. First photo was taken at 2:36 a.m., the last a little after 4 a.m.

C-V CONVAIR

Published every other Wednesday.

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Convairiety

San Diego Palmdale - Holloman EDITION

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SAN DIEGO, POMONA, ANTELOPE VALLEY, CALIF. — ASTRONAUTICS OFF-SITE BASES, FORT WORTH, TEX.



LOADED—First Convair jet transport starts through arduous tests as converted 880-M version with flight loads applied to new leading edge wing slats at SD structures lab. First flight is due soon.

No. 1 Jet Modified to Configuration Of 880-M For Short, Medium Range

First Convair 880-M, modified version of Convair's basic jet transport, is being readied for first flight following completion of structural tests.

Due to go to field operations this week was plane No. 1, first of the basic 880s and first converted to the modified configuration at Convair San Diego. It is expected to go aloft on its first flight soon.

The new 880-M version is designed especially for short and medium-range airline routes with shorter landing and takeoff distances.

Innovations installed by A. B. McFarland's experimental department during the four months the plane has been in modification include slat leading edges, power boost rudder, tail skid to serve as shock absorber during landings. In addition, landing gear was modified for increased weight and a new anti-skid system installed, explained George Trimlett, assistant project engineer assigned to the modification under John Ready of commercial project office.

Also, the custom-built version is equipped with four General Electric CJ-805-3B jet engines with thrust reversers and noise suppressors. These new-type engines will give added advantage of more power with less fuel, according to project engineers.

Since April, two shifts of Dept. 31 mechanics, numbering up to 40 on each shift, have been assigned to the modification of plane No. 1 in experimental yard under supervision of N. R. Keough, foreman. C. S. Strand, Dept. 31 assistant foreman, coordinated mechanical installations on the 880-M configuration.

The converted white and gold transport was taken to the SD seaplane ramp the latter part of August to be put through structural proofing tests of the leading edge wing slats. A separate test specimen was used for testing of the new power boost rudder. A. R. Vollmecke, structures lab assistant group engineer, was responsible for applying flight loads to the new components. Federal Aviation Agency representatives were at San Diego last week to witness tests in the large enclosed structures test laboratory building.

Fourteen 880-Ms have been ordered so far by various airlines, including Civil Air Transport of Republic of China; Avensa Airlines of Venezuela; Japan Air Lines. Included in the total number on order is one to go to the Federal Aviation Agency to be used in its own jet transport training program.

'Idea Men' Collect Checks of $3,530 Earned Through ES

Final installment of the largest Employee Suggestion Award ever made at any Convair operating division—$7,953.50—was collected last week by two Convair SD men who have been consistent ES contributors for more than five years.

R. C. Loomis, Convair vice president and San Diego manager, last week presented checks for $3,530.25 each to C. D. Lane and R. L. Rehard. The men had previously split a first-installment award of $893.

Both winners were in Dept. 205 when they submitted their record-setting ES. Since then, Lane has transferred to Dept. 101.

"You can say that I think the Employee Suggestion program is an excellent opportunity for hourly people to increase their own income as well as one of the best methods available for cutting company costs and thereby increasing job security," said Lane, shortly before the awards ceremony.

"In brief, our ES recommended reducing the size of titanium blanks to the actual size required for the part," the men explained.

To avoid wasting expensive titanium (average value 4¢ per sq. in.) during resistance heating, they suggested seam-welding aluminum tabs to each end of the titanium blank which would serve as electrode attachments during the heating process.

(During resistance heating it is necessary for a developed blank to extend beyond the confines of the die so that material will remain firmly clamped during the forming cycle.)

A lesser advantage also realized is that the area of resistance is reduced because of the excellent conductivity of the aluminum tabs.

The first installment paid was based on savings utilizing the method for F-106 parts. New savings were realized on 880 and 600 jetliners and spares orders for the F-106. Total Convair savings are just shy of $80,000.

During 1959, Lane and Rehard submitted almost 20 ESs, both individually and jointly. Incidentally, their "titanium ES" was submitted last year during the "RX" (Reduce Expense) program.

Lane indicated he would use his share of the award to help put his son, Daniel, 19, and daughter, Melanie, 17, through college. Rehard said he was planning to do a little "investing."

Wohl to Keep Tabs on Convair New Business

Coordination of all new business planning throughout Convair, and seeing to it that new business opportunities are aggressively pursued have been added to the responsibilities of Elmer P. Wohl, Convair vice president-planning, Convair President J. V. Naish announced this week.

The special emphasis upon new business will be in addition to Wohl's present over-all planning and new business evaluation responsibilities.



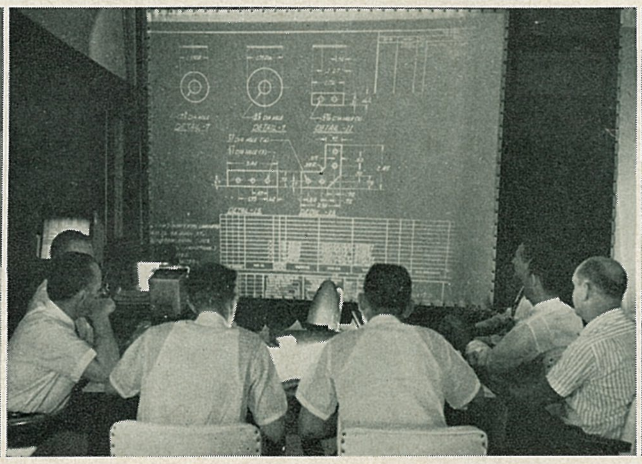
E. P. Wohl

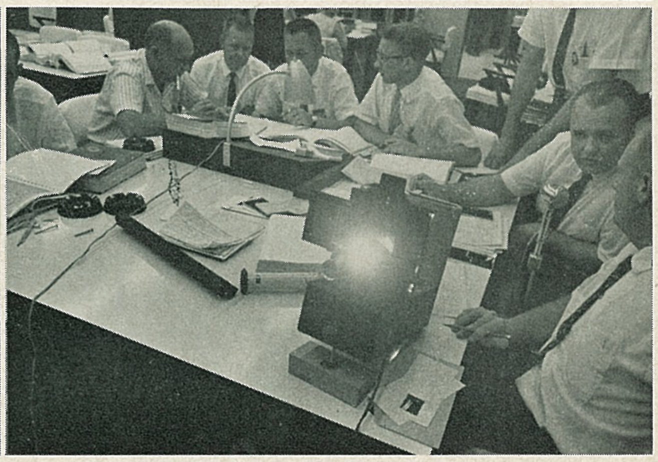
"Execution of our many existing programs, military and commercial—in terms of low cost, high quality and on time—is a prime requisite to continued success," Naish said.

"At the same time, there is a

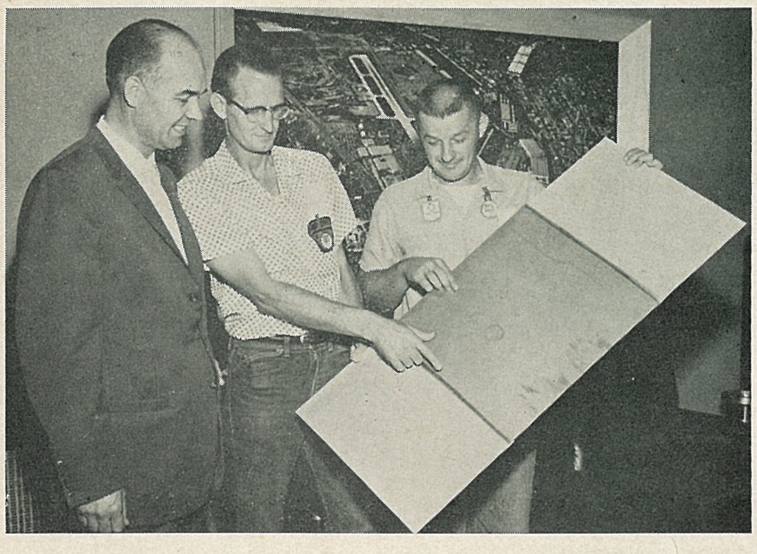
(Continued on Page 2)







DECISIONS—American Airlines representatives will be at Convair SD until Sept. 24 as they continue provisioning conference for upcoming 600 jetliner. Spare parts orders totaling approximately $5 million are expected to be placed. American Airlines representatives viewing blueprint in center photo are R. A. Browne (maintenance), Lyle Gilstead (purchasing), Jim Warren (purchasing), Ben Kreder (overhaul), R. C. Stephen (purchasing), and W. A. Lay (overhaul). Convair photographer Bob Herrmann snapped candid shots during working session in Bldg. 4 military relations conference room.



NEW RECORD—C. D. Lane (center) and R. L. Rehard explain their Employee Suggestion, which recommended using aluminum tabs for resistance heating while forming titanium, to R. C. Loomis, Convair vice president and San Diego manager. Their joint award totaled $7,953.50, a new all-time Convair high.

Wohl to Coordinate Convair Efforts Toward New Business

(Continued from Page 1)
requirement for aggressive pursuit of new programs if we are to continue in the 1960s our success in the 1950s.

"I am concerned that we perceive new opportunities at the earliest possible time; that we evaluate these carefully and quickly; and that those which hold the most promise be forcefully advanced."

Naish pointed out that General Office staffs and the operating divisions each have present responsibilities in the new business area which must be vigorously carried out.

"At the same time, I must be assured that the necessary steps in each important program are anticipated and planned for, that approaches are changed as necessary and actions taken in time to achieve the best results."

Naish said the new alignment will in no way relieve the vice president-engineering, vice president-commercial sales, director of military relations, and other concerned executives in General Office and the operating divisions from carefully planning and executing new business responsibilities.

"Wohl's responsibility extends through all Convair operating divisions," Naish said. He also will integrate Convair new business planning with that of the General Dynamics corporate office and divisions.

Wohl will retain his present title and overall planning duties, including the responsibility for evaluation of new programs, Naish said, and has been authorized to delegate other of his duties if necessary in order to concentrate on the new assignment.

New Flight Test Function Formed To Aid Jet Transport Customers

A new function within engineering flight test at Convair San Diego has been formed to provide assistance to airline customers as Convair jet transports are placed in service.

Airline performance engineering group of SD engineering flight test will provide answers to customer inquiries on performance of Convair jet airliners, explained W. W. Fox, SD chief engineer, in announcing formation of the activity.

Heading up the newly-organized function is R. L. Runnalls, who previously had responsibility for FAA flight test coordination.

Runnalls, in his new capacity, will spend time at operations centers of all airlines flying Convair 880s and 600s to become familiar with their particular flight operations and individual problems. He recently returned from Atlanta, Ga., where he spent several days flying as observer in 880s over regular Delta Air Line passenger routes.

Talented Convair Daughter, Home From Europe After Two Years of Study, Gives Concert

Virginia Rubottom, talented 19-year-old concert pianist, the daughter of H. W. Rubottom, Convair SD chief of educational services, was heard in her fourth annual San Diego appearance this week following studies abroad.

She has studied in London and Paris during the last two years, receiving the degree of Fellow at Trinity College of Music, University of London and continuing her studies at the Royal Academy of Music in London and with private teachers.

This spring, in May, she received superior evaluation at the Queen Elizabeth of Belgium International Competition in Brussels as one of the 12 finalists chosen from 200 pianists from all over the world.

Since her return to the United States this summer, Virginia has appeared in concerts in the New England states. She plans to return to the East Coast the end of this month to continue her studies in either New York or Boston. In addition to her mastery of the piano, she plays a wide variety of string instruments and will be playing viola with the Portland, Me., Symphony Orchestra this season.

★ Convairiety ★

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Astronautics Editorial Offices. Bldg. 8, Astro site, ext. 3322. Staff: Bryan Weickersheimmer, news editor; Willard Harwood.

FW Editorial Offices, Col. 73C, ext. 2961. Mailing address: Convairiety, Convair, Fort Worth, Texas. Telephone PErshing 8-7311. Staff: Dave Lewis, news editor; Mary Beck.

Pomona Editorial Offices, Room 106-D, Bldg. 1, ext. 6226/5279, mail zone 3-3. Staff: James Combs Jr., news editor; Dorothy Keller.

Palmdale news representative, CRA office, Room 36, Bldg. 301B, ext. 331, Palmdale facility. Holloman: O. J. Ancel, industrial relations, ext. 20, Holloman AFB.

'Ice Breaking' Theme Of Toastmistresses At Dinner Meeting

"Breaking the Ice" was theme of Delta Toastmistresses at their Sept. 13 dinner meeting in the executive dining room of the new Convair cafeteria, Pacific Highway.

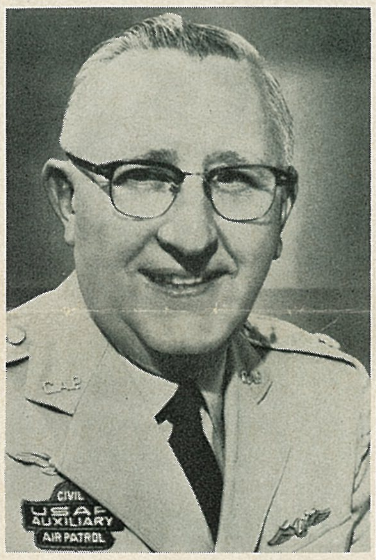
Members heard six new members "break the ice" with their first speeches. Also, two others, Pamela Gray and Dorothy Bowmer, were inducted into the club by Marge West (Dept. 6-71), membership chairman.

Presiding was Juanita Wilson of SD Dept. 190, new president. Program arrangements were in charge of Sunny Cooper (AF office), vice president.

Other Convair women taking part were Martha Woodberry (Dept. 3-2), toastmistress; Sunny Cooper, invocation; Roxanna Miller (Dept. 1-65), timekeeper. Joyce Simon (Dept. 1-71) collaborated with Marge West in presenting a work shop on speech evaluation.

Standing committee chairmen named for the current term were Sunny Cooper, program chairman; Roxanna Miller, publicity; and Marge West, membership.

All Convair women interested in developing poise, self-confidence, and good speaking habits are urged to contact Marge West, ext. 2993, Plant 1. Dinner meetings are held regularly the second and fourth Tuesday of each month at 7:30 p.m. in the Convair SD executive dining room.



TOP MAN — Leroy F. Breitbarth, Pomona senior design group engineer, is new commander of California Wing of Civil Air Patrol.

Professional Training Centered in Bldg. 51

All professional and technical development activities offered through Convair SD educational services currently are handled through the office located in Bldg. 51, Plant 1, said H. W. Rubottom, chief of educational services.

Until recent realignment of educational services functions, the office in the SD engineering building had been in charge of training designed exclusively for engineers.

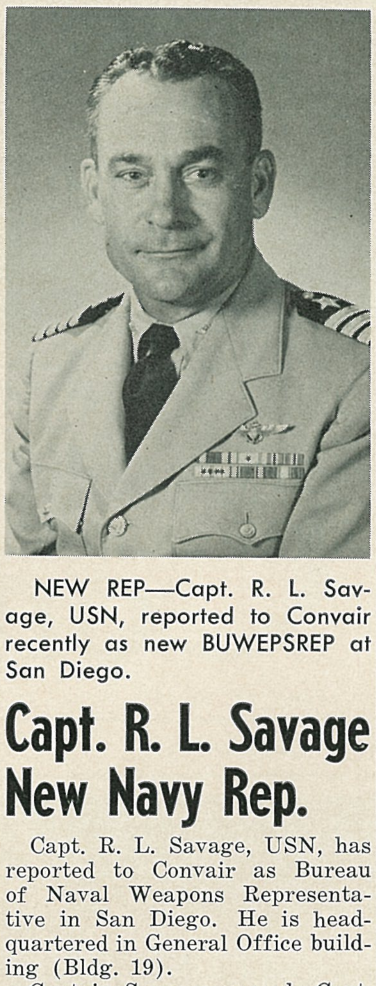
R. H. Nall is supervisor in charge of development for professional and administrative personnel, located in Room 378, Bldg. 51, Plant 1, ext. 1827.

Plant Bus Service Improved For SD

Bus service within Convair San Diego plant facilities has been expanded, effective last week, according to B. R. Hisaw, chief of transportation operations.

The new schedule provides transportation between Plant 1, Plant 2, and Rose Canyon every 30 minutes, leaving Plant 1 on the hour and on the half-hour, starting at 7 a.m. After 5:30 p.m. trips are cut to every hour on the half-hour until 12:30 a.m.

Buses connect Plant 1, the seaplane ramp facility, and the Model 8 flyaway facility (gun butts) every 40 minutes during first-shift hours.



NEW REP—Capt. R. L. Savage, USN, reported to Convair recently as new BUWEPSREP at San Diego.

Capt. R. L. Savage New Navy Rep.

Capt. R. L. Savage, USN, has reported to Convair as Bureau of Naval Weapons Representative in San Diego. He is headquartered in General Office building (Bldg. 19).

Captain Savage succeeds Capt. D. M. Wisehaupt, who retired in June after heading the San Diego office for nearly three years. Cdr. William A. Matthews Jr., acted as representative in the interim.

Before his present assignment, Captain Savage was director of Planning Staff in the Office of Naval Material, Washington, D. C., for three years. A native of Oklahoma, he was graduated from the U. S. Naval Academy in 1937.

During World War II, he commanded a torpedo plane squadron in the South Pacific. Following the war, Captain Savage was in command of the Naval Air Facility at Newport, R. I., and, in this capacity, was in charge of development of underwater ordnance.

He has been on aeronautical engineering duty with the Navy since 1946, based at Washington, D. C., San Francisco, and Seattle. Other assignments have seen him heading the Purchase Branch of the Bureau of Aeronautics in Washington, D. C., and serving as Bureau of Aeronautics Representative at Bendix Corporation.

Is It News?
Call Convairiety

Specialists Chosen For Lecture Series Opening Sept. 15 in SD

Three Convair materials specialists, one from San Diego operating division and two from Astronautics, are among experts chosen to participate in a new University of California Extension lecture series.

Coordinating the special course, Materials for Missiles and Spacecraft, is James F. Watson, Astro senior research engineer. He will also give one of the lectures, scheduled for Dec. 15 in the San Diego area.

A Hurlich, Astro research group engineer, will speak Dec. 8 in San Diego and W. H. Steurer, SD chief of engineering materials, will conduct the Jan. 12 session.

The statewide series, opening in San Diego Sept. 15, 7 p.m., at Roosevelt Junior High School, will be repeated in Los Angeles, Corona, and Menlo Park. Registration is open at the University Extension office, 1221 Fourth Ave., SD.

Blood Bank Credit Upped by 68 Pints By Second-Shifters

Blood donors at Convair SD Plant 1 boosted the credit at San Diego Blood Bank by 68 pints at the Aug. 26 bloodmobile visit.

Just half of the second-shift volunteers showed up and were accepted, said Ken Wulfemeyer of SD employee services. The rest of the 136 originally signing either forgot the date or were ineligible due to illness or eating within the four-hour limit.

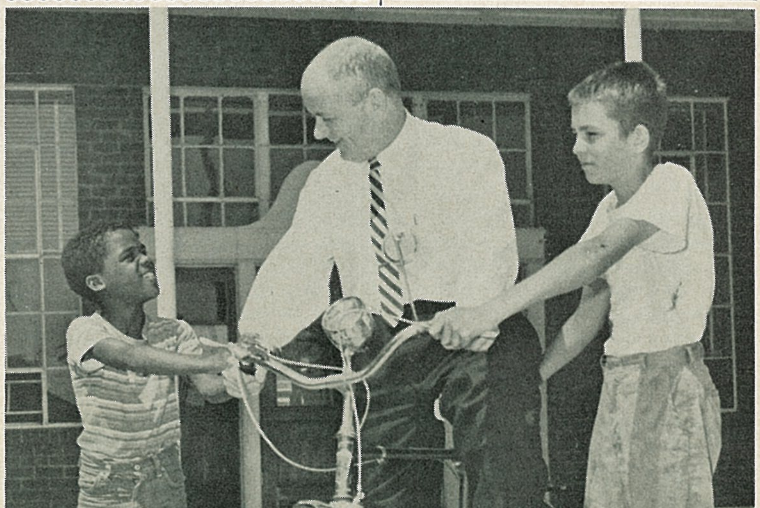
With a total of 150 pints now available to Convair SD persons and members of their families, no bloodmobile will be scheduled this month, said Wulfemeyer. Usual withdrawal from the Blood Bank is about 60 pints a month.

Ted Laven to Head Office at Geneva

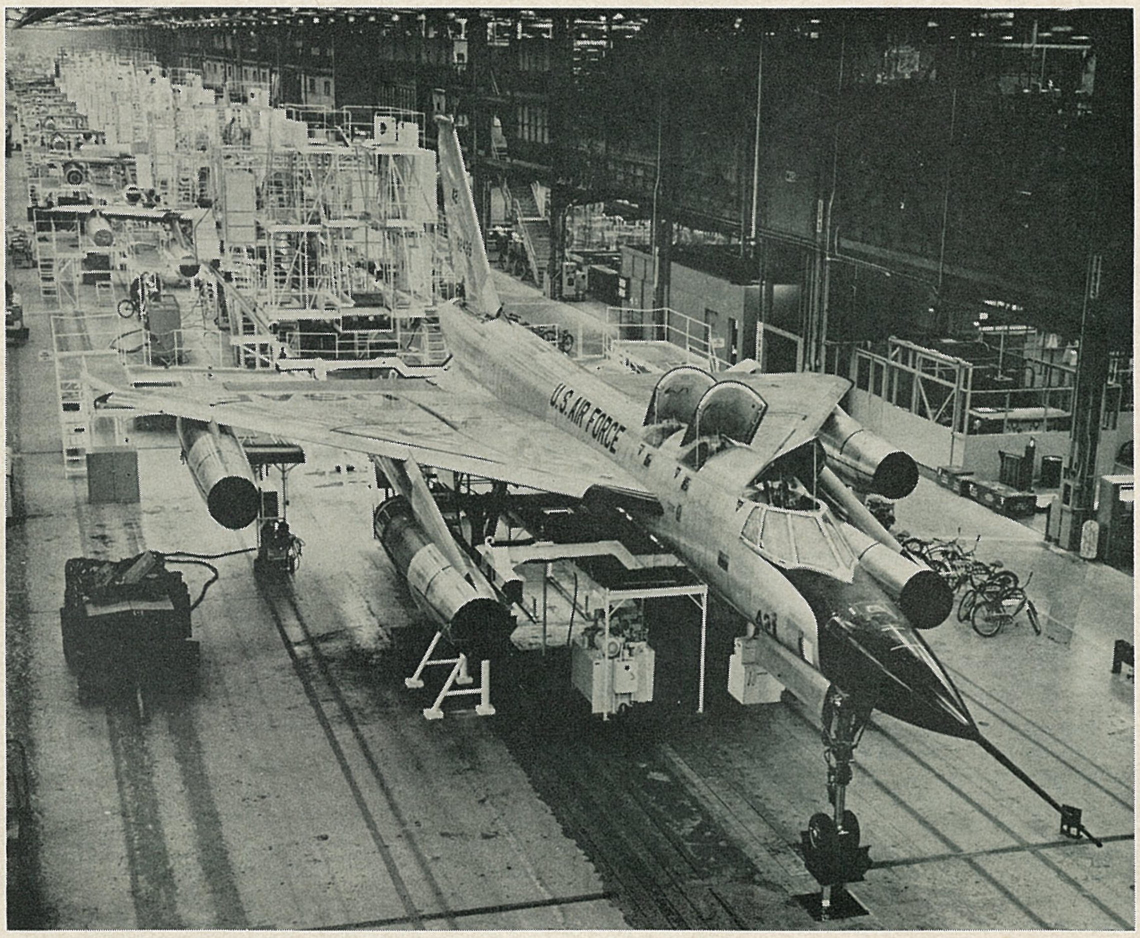
Ted Laven, who has spent nearly a dozen years abroad representing Convair, has been named European manager at Convair's Geneva office.

He succeeds George C. Prill who has left the company. Laven first went to Europe as a field service engineer, later became a sales representative.

P. L. Ward, who has been assigned to Geneva since 1957 as European representative, is returning to San Diego to become assistant manager-commercial sales, in General Office.



IN SADDLE — C. F. McMenamy (Dept. 6), Convair SD "loan executive" to United Fund, gets bike riding lesson from Antonio McHerron (left) and John Stewert, members of United Fund-sponsored San Diego Boys Club. Another 250 Convair SD men have volunteered to solicit contributions for United Fund.



HUSTLER ROW—B-58 comes to rest at end of assembly line on hydraulic stands under landing gears.

Big Task of Excavating Involved in Hard Sites For Missile Launchings

Construction techniques employed in building underground or "hard" launch sites for the Atlas missile parallel modern mining methods.

At each site, one of the first steps is an "open cut," similar to those made in open pit mining. Earth moving equipment gouges out areas to a depth of about 50 feet into which the launch complex (missile launcher, launch control building, etc.) will be built.

Then mining methods are put into operation in sinking a hole for the launch "silo" another 135 ft. below the surface. This is normally a rough-cut hole some 60 feet in diameter in which the "silo" with its approximately 52-foot diameter is installed.

Excavation methods vary with contractors, but most follow a more or less set routine.

A bulldozer loosens earth, a frontloader scoops up dirt or rock, depositing it in a crane bucket for removal. Usually, equipment remains in the hole, then is lifted out via a crane cable at conclusion.

As the hole is excavated, sectional ring beams of eight to 12-inch steel shore up the sides. These remain as a permanent part of the structure. Ring beam spacing varies with soil conditions. Reinforcing mesh is placed on the soil structure between beams and a form of liquid concrete is sprayed on to form a solid wall.

As the wall grows downward, workers at the bottom of the pit (called "muckers") are protected from falling rocks by giant nets suspended from the top.

When the final level is reached, the floor of the "silo" is poured.

Next comes installation of reinforcing steel to the interior of the completed outer wall.

Unique hydraulic forms much like those used in erecting grain silos then are added. This allows a continuous pouring of the actual walls with the hydraulic units slowly rising to the top. This operation requires an around-the-clock job that lasts from 14 to 16 days.

Some idea of the scope of the construction task is seen from the fact that 1,612,000 lbs. of reinforcing steel are used in a silo, with an additional 172,000 lbs. strengthening the launch control center.

The silo uses 6,600 cubic yards of concrete, and 1,000 cubic yards go into the launch control center.

At most locations, contractors encounter shale and hard rock substrata. This calls for special blasting techniques.

Plattsburg AFB, N. Y., has encountered more solid rock than any other "hard" site to date.

As the "silo" goes in, other workers install the launch control building at the base of the "open cut." This is completed along with the "silo" and the earth is replaced, leaving only the top of the launch site visible. This opening is covered with huge sliding doors.

Once completed, the Atlas missile will rest in a vertical position below ground. It will be brought to the surface for launching via a special elevator.

★ ★ ★

'Perfectly Even' Rails Carry B-58s Down Line

B-58s at Convair FW roll down an assembly line that is as much a part of the supersonic age as the Hustler itself.

Built on "perfectly even" steel rails that run from Col. 110 to 156 near the Mezz, the 11-station line offers many an assembly line innovation.

For example:

Nose and tail work stands, also equipped with rails, stay with a B-58 from start to roll off.

Work stands are equipped with storage space for numerous B-58 panels which must be stored during work on the plane.

And a central supply of air and electrical power services the entire line, precluding portable generators at each station.

The new assembly line went into operation Jan. 6, 1959, replacing the old assembly area in the 120-foot bay. Hustler 31 was first through.

Standing nine feet off the floor, the steel rails are 18 feet, 4 inches apart. So precisely are they installed that measurement won't vary 3/16 of an inch in a parallel line or 1/18 inch vertically.

This virtually eliminates stresses on the plane during assembly, according to Bob Vaughn and John Dillman, senior plant design engineers. And it makes it unnecessary to "level" a plane when moving it to a new station.

It also facilitates moving the plane. Two men can easily move the Hustler from first to second station. And farther down the line — with substantial poundage added — a 50,000-pound Hustler can be moved with relative ease by four or five men.

"Beauty of the movable work stand is that airplane parts can move right down the line with it," said Cecil Carter, general foreman in final assembly.

"We save time, misplace fewer parts, and work more efficiently with this arrangement. In addition, it's safer, since we don't have to tear down work stands with each move."

So efficient is the system, in fact, that Carter estimates each B-58 on the line could be moved down one station — given ample preparation time — in about an hour. Time required for a similar feat in the old 120-foot bay area: about 16 hours.

"Another thing," Carter said, "the B-58 assembly line could easily be modified to handle practically any airplane of comparable size. All we'd have to do is change the bridges."

Lifted onto the assembly line by overhead crane, the major mating of wing, fuselage, and tail takes place in Stations 1 and 2.

The Hustler sits on bridges cradled between the rails and supported at four different points. Stations 3 and 4 are final primary, where fuel and hydraulic systems and doors on main landing gear are installed.

Latest configuration changes in production Hustlers are made in Stations 5, 6 and 7.

Then comes pressure testing, rigging, and installation of electrical, hydraulic and control systems — and final Convair and Air Force acceptance — in Stations 8 through 11.

At the end of the line, hydraulic lifts built in the floor are raised under each of the main landing gears and the nose landing gear to lower the Hustler gently to floor level.

Thence to system operations — and eventually a major defense role in Strategic Air Command.

Gen. Schriever Flies Twice in Hustler

Lt. Gen. B. A. Schriever, commander of Air Force's Air Research and Development Center, recently took his first ride in a B-58 Hustler.

General Schriever flew second station on flights from Edwards AFB to Fort Worth, and from Convair FW to Kelly AFB, San Antonio.

Maj. Fitzhugh L. Fulton was pilot on both legs of the flight, the first in Hustler No. 3 and the second in No. 7. Lt. Charles Hayne was third-station operator.

Surveillance Teams Organized To Help in Activating Hard Sites

Six locations, from upstate New York to the sands of New Mexico, are receiving "task forces" of Convair Astronautics employees involved in activating "hard" or underground launch sites for the Atlas missile.

These will make up surveillance teams composed of about 61 persons each. Their numbers are being drawn from base activation, plant engineering, liaison engineering, quality control and activation tooling. Each of these functions are assisting in naming key men to fill the jobs.

However, once on site at the six "hard" Atlas bases, the men become members of the team responsible to an activation operations supervisor. He, in turn, has assistant supervisors for plant engineering, liaison engineering, quality control and activation tooling.

J. R. Chapin, Astro's chief of activation operations, directs the efforts of all teams, working closely with his supervisor, E. J. Huntsman, base activation works manager, and A. P. Higgins, base activation manager.

Surveillance teams go into action from the time the contractors make the initial cut for future underground launch sites. They remain on hand as Convair's "voice" and control over all phases of the operation until the Convair operations manager for each site arrives. Then they continue their surveillance effort under his direction and are, in time, absorbed into his organization.

In activating earlier bases surveillance fell to much smaller groups working out of plant engineering and operations engineering.

The new concept is being installed beginning with the "hard" sites because Convair now has operations managers on hand at all other Atlas bases.

Each of the individual functions represented in the surveillance team helps in naming key personnel to fill assignments at the bases.

Following are the "hard" launch bases showing, in order,

(Continued on Page 4)

Doling Receives Capital Post

Appointment of Lloyd L. Doling as manager—Navy in Convair's Washington, D. C., office was announced recently by J. V. Naish, Convair president. The appointment was effective Sept. 1.

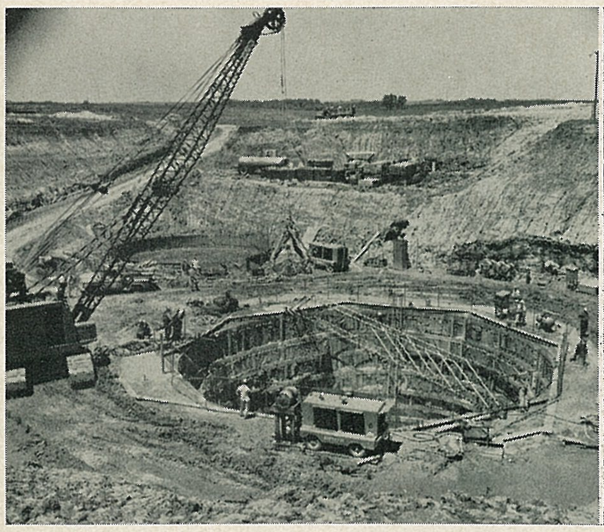
Doling has been customer requirements administrator at Convair Pomona since 1957, and formerly served for three years as a Convair representative in the Washington office. He is a veteran of the Terrier missile program, both in its early stages at Convair San Diego, and at Pomona, where the missile is now in volume production for the U. S. Navy.

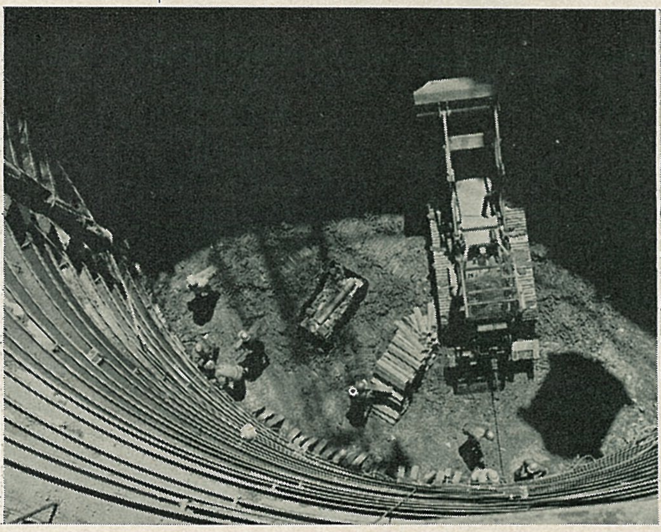


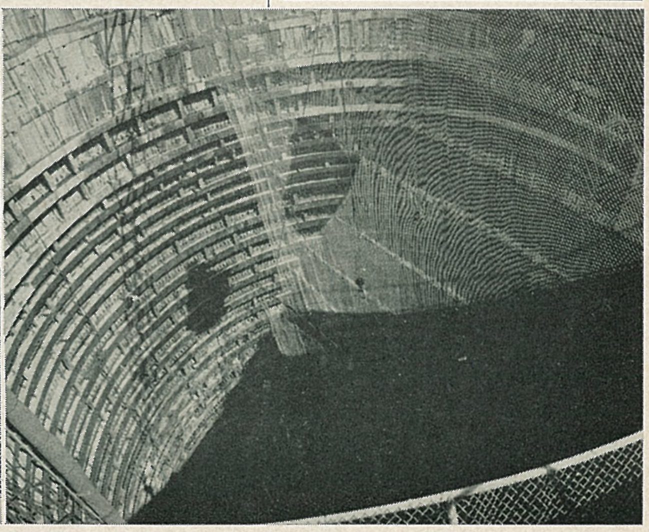
L. L. Doling

Before joining Convair, Doling served for four years with the Civil Aeronautics Administration. He is a native of South Dakota, and served in the Navy during World War II as a carrier-based fighter pilot in the South Pacific.

Doling will be replaced at Pomona by J. P. Shaw, formerly of the Washington office.







GOING DOWN—Constructing "hard" base for Atlas missiles involves big earth-moving job, as these photos taken in vicinity of Lincoln AFB, Neb., indicate. Earth digging equipment (center) remains in hole until maximum depth has been reached, then is hauled out by crane. Note giant net at right which protects men below from falling soil and rocks. Hydraulic forms allow continuous pouring of walls around the clock for over two-week period.



BACKYARD SWIMMERS—Greta Phillips, Convair SD plastic fabricator, is ringed by interested youngsters as she teaches first motions in Red Cross swimming course in backyard pool program.

2,000 Kids Have Learned to Swim Thanks to SD's Greta Phillips

Several thousand children in the San Diego area owe their swimming prowess to a Convair SD woman, Greta Phillips of Dept. 129.

In the last 12 years Greta estimates that she has taught over 2,000 children of all ages to swim in her after-hours work as Red Cross instructor.

She learned to swim herself at the San Diego YWCA the year before, and went on to become a certified Red Cross instructor. Since then she has devoted every evening she can spare the year around to teaching classes wherever she's needed. All of her time is donated on a volunteer basis.

"I always keep a swim suit in the car, and often go straight from work to some swimming class," she said.

The last four years she has been teaching in the backyard swimming pool program, putting in 50 to 75 hours each summer. In the winter months she teaches classes of blind children at Copley YMCA and Saturday swimming classes at the YWCA. In five years she only missed five Saturdays, because of illness.

Last year she organized a mothers' class when she realized that many of the mothers waiting outside for their children couldn't swim either. Now, her co-workers at Convair are urging her to start an evening class just for them.

"I've never done anything I enjoyed so much. There is untold satisfaction in watching a child finally swim across a pool and remember that a few weeks before he had been afraid to get into the water," Greta remarked. "The only disadvantage to teaching is that I don't get to swim much myself!"



IN THE FIELD—Reaching widely-scattered Atlas "hard" launch sites under construction is no easy task. Group above, at Schilling AFB, Kan., used Army helicopter. They include C. R. Priest, W. J. Connelley and Jack Stinson of Astro, Capt. J. Vincent of Army Corps of Engineers and two Army pilots. Men are part of new surveillance team concept instigated by Astro for "hard" bases.

Surveillance Teams Organized To Help in Activating Hard Sites

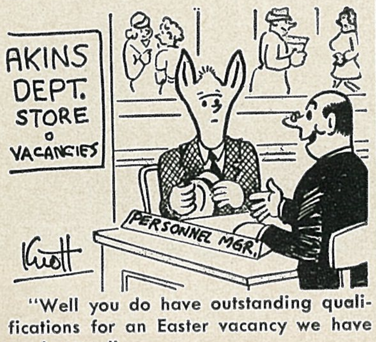
(Continued from Page 3)
the Convair activation operations supervisor and his assistant supervisors for plant engineering, technical liaison, quality control and tooling:

Schilling AFB, Kan., J. W. Stinson, C. R. Priest, A. E. Munson, C. V. Spear and A. Phelps; Lincoln AFB, Neb., A. J. Goehla, R. D. Smith, F. H. Leiser, C. W. Dale and J. L. Cavanaugh; Altus AFB, Okla., L. Fischer, R. A. Livesay, L. C. Pollock, P. I. Ferguson and D. E. Burnett; Dyess AFB, Tex., W. D. Burk, P. W. Rouse, T. S. Strait, C. A. Nichols and M. Buchko.

Walker AFB, N.M., A. H. Mandale, H. C. Phillips, J. R. Klompar, B. J. Sutton and J. W. Shortridge; Plattsburg AFB, N.Y., R. L. Richards, R. C. Smith, J. R. Muir, D. J. Scanlon and K. W. Spence.

At the "hard" sites 12 Atlas launch positions are being installed at widely-scattered points. Distance between these points is often great, necessitating the assignment of personnel to each site on a permanent basis. Normally, the plant engineering construction engineer serves as the site "team captain" with early help from tool planners and quality control representatives. Other men work on a "roving" basis, moving from site to site as needed.

Prior to their assignments in the field, many of the surveillance team members gain valuable experience working in and around Astro's "silo" mockup at the main plant, a duplicate of the future operational sites.



"Well you do have outstanding qualifications for an Easter vacancy we have coming up."

Schedule Kept On Electronics Data System

Last components of the data handling system designed and built by Convair SD electronics for the Air Force have gone to Wright Air Development Division, Dayton, Ohio.

Shipment of final sections of the advanced system, called the largest, fastest, and most capable of its kind, completes construction of DAISY II (Date Acquisition and Interpretation System) by SD electronics manufacturing at the Convair SD plant. Development and design under the more than $2-million contract began in the fall of 1958 with first components delivered October, 1959. **(Convairiety, Oct. 28, 1959.)**

A Convair SD electronic engineering team, headed by Robert Crabb, is now at the Dayton, Ohio, site installing and checking out the entire system. It will be ready for operation on schedule, within the two-year specified period, reported Paul C. Sheretz, SD electronic design specialist, responsible for technical design, installation, and checkout of the system.

Assisting in final acceptance tests at WADD are Convair resident engineers, Ellis Collier and A. N. Bradley.

The system will be used to collect data during high temperature structural tests of advanced aircraft and space vehicles put through simulated supersonic flights in the WADD laboratory.

At top speed, the eight data acquisition carts will collect 122,000 samples of data per second from transducers attached to specimens. During a complete maximum test 20 million pieces of data can be gathered.

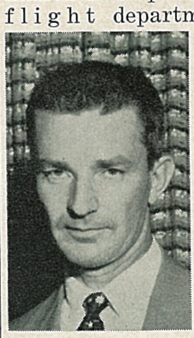
All of the information is recorded and a quarter of it displayed on cathode ray tubes for engineers to watch during testing. Within two hours after a test run all data is analyzed on the high-speed digital computer built into the system. The entire system has a capacity of 2,048 input channels.

Final data is in the form of microfilm pictures of graphs and Stromberg-Carlson Charactron tube displays.

Overall design direction was under Stan Rogers, SD senior data systems group engineer, and project engineer was Howard Stern, electronic senior project engineer. D. C. Newlon was responsible for electronic assembly in Convair SD electronics manufacturing.

Johnson Transfers To FW Chief Pilot

R. L. (Dick) Johnson has been named chief pilot in Convair FW flight department, Frank W. Davis, Convair vice president and FW manager, has announced.



Dick Johnson

Johnson comes from the San Diego operating division, where he served as chief engineering test pilot in the F-102 and F-106 programs.

He will report to B. A. Erickson, manager of flight.

Toastmasters Club Elects SD Engineers

Three Convair SD engineers have been elected to office in the North Shore Toastmasters Club.

Jerry Hall of the thermodynamics group will head the club as president; John DeBevoise of aerodynamics group, educational vice president; and Bill Bradley of electrical group, secretary.

Convair men interested in improving their public-speaking ability may call Hall, ext. 1808; DeBevoise, ext. 1001; or Bradley, ext. 2328, all Plant 1.



VALET SERVICE—Astronautics employees in weekend role as Army Reserve deep sea divers ready companion for descent. Donald Thompson (left) and Roland Kuerbis (right) help Billy Roach with suit's breastplate fastenings, while Norman Peace, who commands unit, looks on.

Sea-Going U.S. Army Reservists Train as Divers During Weekends

Four Convair Astronautics employees have the distinction of being deep sea divers for the U. S. Army in Navy-dominated San Diego.

1st Lt. Norman B. Peace, USAR (Dept. 603), commands the 294th Engineer Detachment (Diving), U. S. Army Reserve, at Fort Rosecrans. Astro members of his training unit are Roland F. Kuerbis, Dept. 211, and Donald A. Thompson and Billy G. Roach, Dept. 500.

The Army divers meet on weekends to practice military skills. Wartime mission of the unit lies in clearing and rehabilitating harbors and inland waterways after enemy attack.

The men practice regularly with regulation deep sea diving outfits of canvas-rubber suits and heavy steel diving helmets. They also use shallow water gear having only a face plate breathing apparatus, and conventional SCUBA diving equipment.

The unit is equipped with portable air compressors of sufficient capacity to support five men under water simultaneously.

Each summer the unit participates in two weeks active duty training at Fort Baker, San Francisco.

New Cockpit Procedure Trainer Awaited at San Diego For 880-M

A second cockpit procedures trainer will be delivered at Convair San Diego this month to continue jet transport training on advanced versions of the 880.

The new trainer, like the first one put into use by Convair SD early last year, was built by Burton-Rodgers, Inc., at Cincinnati, Ohio. It was constructed to Convair specifications to simulate the cockpit of the 880-M jet transport.

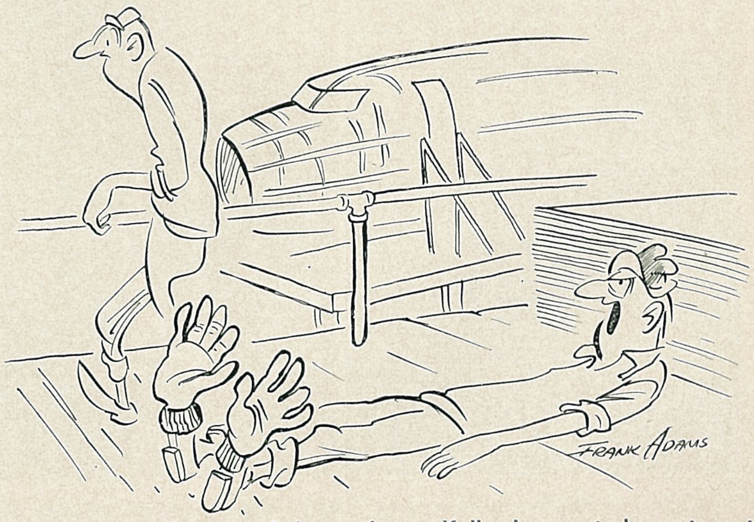
First version will be that of Japan Air Lines, which is sending flight crews to San Diego for training early in October. The trainer will be modified at Convair to other 880-M versions as flight training begins for other airline customers, said P. H. Selby, supervisor of production flight training.

In Cincinnati for acceptance tests last month were H. L. Johnson of quality control; Jack Polk of SD support design group; L. O. Luce, representing production flight.

Convair SD's original 880 cockpit procedures trainer, first to be built for jet transport training, has been returned to Burton-Rodgers' Tulsa, Okla., location for modification. It will be transformed to the Swissair-SAS configuration of the Convair 600 before it is returned to San Diego later this year. Changes to versions for other airline customers, including American Airlines, will be made at Convair SD.

"The cockpit procedures trainer proved its value in the year and a half it has been used to familiarize our own and customer flight crews with the 880," he said. "It not only reduced actual time needed in the planes, but gave pilots and flight engineers an opportunity to operate system controls and to learn such fundamental procedures as check lists and engine starts before going into the plane itself."

Flight crews had spent at least 1,500 hours in the 880 cockpit procedures trainer since it went into operation in February, 1959. Customer airline pilots and flight engineers receive 10 hours each in the trainer during ground school at Convair SD. When possible, airlines personnel at San Diego for customer service training courses are briefed on the trainer.



"When you borrowed these gloves, Kelly, I expected you to put them back in the locker where you *found* them!"

NEWS FROM OTHER DYNAMICS DIVISIONS

General Dynamics Corporation, created in April, 1952, as successor to Electric Boat Company, is composed of seven divisions and a Canadian subsidiary, Canadair Limited, of Montreal, airframe builders. The divisions are:

Convair, head offices at San Diego, Calif., aircraft, missiles, and space systems.

Electric Boat of Groton, Conn., submarines.

Stromberg-Carlson, of Rochester, N. Y., telecommunications, electronic equipment.

Liquid Carbonic of Chicago, Ill., carbon dioxide producer, industrial and medical gases.

General Atomic of San Diego, Calif., nuclear research, development, production.

Electro Dynamic of Bayonne, N. J., electric motors, generators.

Material Service Division, Chicago, Ill., building materials, concrete products and coal.

* * *

First Swing-Tail Freighter Plane Rolled Out of Canadair's Plant

MONTREAL — Canadair Limited's first swing-tail version of its Forty Four turboprop freighter has rolled out of the factory here recently.

The new airplane meets commercial cargo airline requirements for straight-in loading. Used in conjunction with mechanized loading, swing-tail gives an aircraft ground turn-around time of an hour, compared to five hours for conventional piece loading.

Design of the swing-tail incorporates features which insure simplicity, safety and reliability. The large opening presented when the tail is swung aside allows rapid mechanized loading of pallets and containers into the main cargo hold, rear underfloor compartment and the tail itself. All components of the swing-tail are readily accessible for maintenance or visual inspection, but are so located that they do not hinder loading or unloading operations. The tail can be opened through an arc of 105° in about 90 seconds and closed and locked in the same time.

The swing-tail is mounted on two hinges on the right-hand side of the Forty Four rear fuselage with streamlined glass-fiber fairings over the hinges. During the closing sequence, alignment between tail and rear fuselage joint faces is obtained by a ramp and roller system. Final alignment is provided by wedge blocks mating with recesses next to each lock. An inflatable seal around the joint faces maintains cabin pressure and a weather seal prevents entry of rain when the airplane is unpressurized, on the ground.

The actuators to swing the tail open or closed are located in the dorsal fin and consist of two interconnected articulated hydraulic jacks capable of a 12,000-lb. operating force. The actuating system is designed to open or close the tail against a 30 mph crosswind and to hold it open against a 60 mph wind.

Eight locks secure the tail section to the main fuselage. These are hydraulically operated and of fail-safe design.

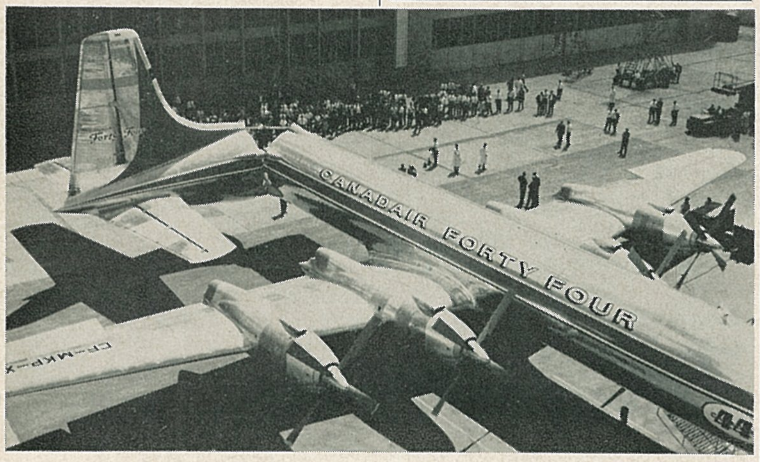
Design work on the Forty Four's swing-tail was completed before the end of 1958 and a functional test-rig was in operation by October, 1959. Repeated opening and closing cycles with the test-rig simulated the complete operational life of the airplane to check out actuation, alignment on closure, locking and sealing.

On June 15, 1960, the first swing-tail ever built was attached to the fuselage of a Canadair Forty Four on the production line here.

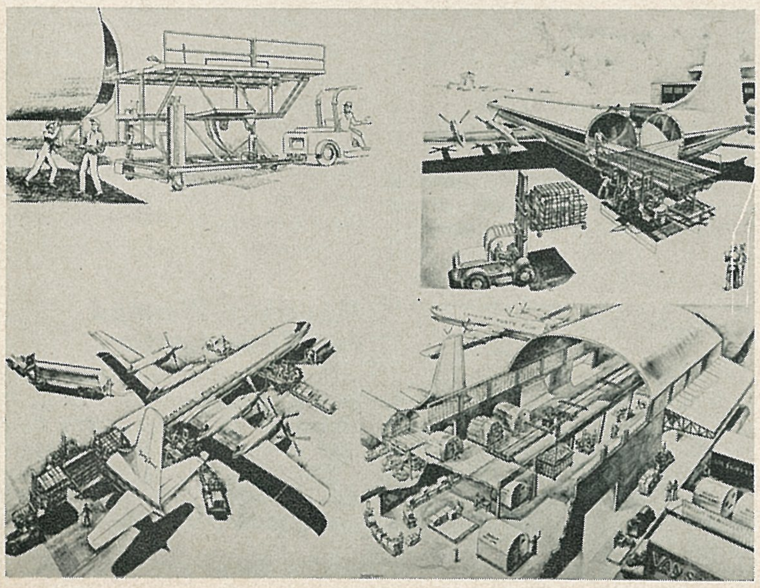
New Post Created At Stromberg-Carlson

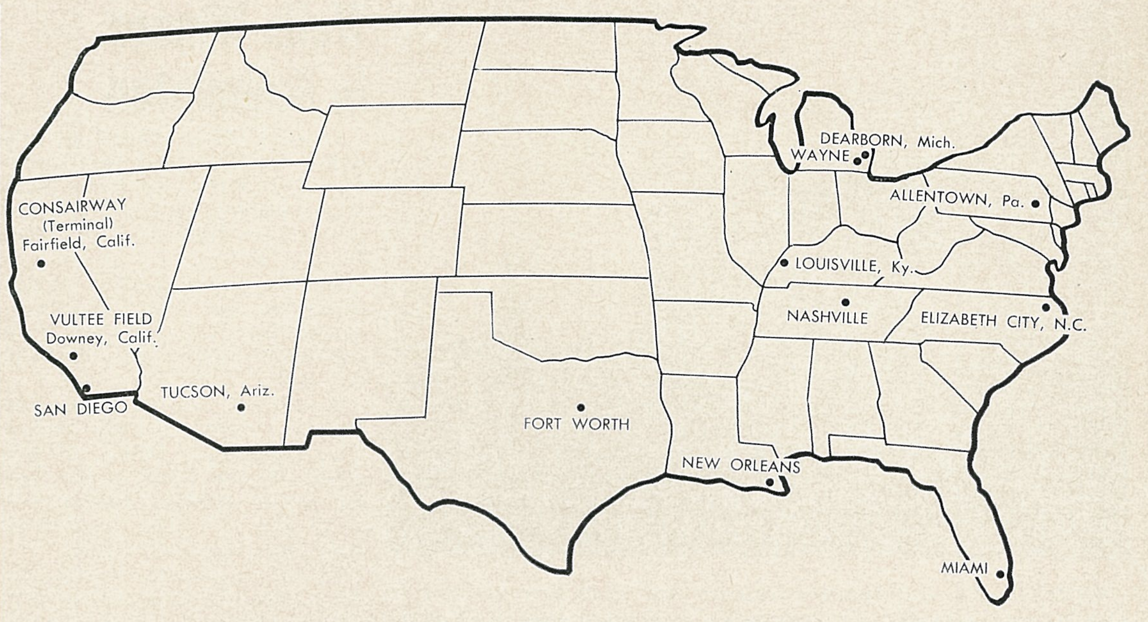
SAN DIEGO—Albert E. Loomis (no relation to Convair SD's manager, R. C. Loomis) has been appointed to the newly-created position of manager of industrial engineering at Stromberg-Carlson in San Diego.

He was formerly employed by Raytheon Mfg. Co., Waltham, Mass., in the Missile Systems Division. In his new post, he will report directly to Stromberg-Carlson's general manager.



NUMBER ONE—First swing-tail cargo airplane ever built rolls out of Canadair plant. Planes, known as Canadair Forty Four turboprop freighters, will go into service in U.S. in 1961. Below are artist's sketches on how swing-tail works.





RE-RUN—Map above, which appeared in Aug. 31 Convairiety, is republished as further aid to readers in locating various wartime divisions of Convair touched upon in accompanying history.

Many Different Planes, Parts Built in Wartime

(Following is installment No. 43 in a continuing history of Convair.)

Early in the war, plans called for Nash-Kelvinator to make Vought-Sikorsky flying boats in a government-built plant on Lake Pontchartrain, New Orleans. This program was abandoned late in 1942 and the Navy announced in January, 1943, that Consolidated would take over the factory, then nearing completion, to build P4Y flying boats (the Consolidated Model 31). Tooling was started that spring, but plans changed anew. The P4Y project was dropped and it was decided to transfer manufacture of the PBY-5A Catalina amphibians from Convair at San Diego to Convair at New Orleans.

The first Catalina was accepted by the Navy in April, 1944, and production totaled 235 through September, 1945. Into these boats went 119 hulls and 172 wing center sections shipped from Montreal by Canadair Limited, a newly founded Canadian company that later became a subsidiary of General Dynamics Corporation.

The New Orleans Division reached a peak employment of 6,487 in February, 1945. The plant was closed in September and the property returned to the government.

In 1942 the Navy proposed that Vultee Aircraft undertake manufacture of a Vought-Sikorsky torpedo bomber, the TBY Seawolf. In December it was announced that Mack-International Motor Truck Corp.'s "Twelfth Street" plant in Allentown, Pa., would be taken over for this purpose. The Defense Plant Corp. would spend an estimated $11 million for machinery, auxiliary buildings and an airport.

Production started in August, 1943, the first TBY was accepted in November, 1944, and employment climbed to 4,990 in the spring of 1945, when the torpedo bomber began coming off the assembly lines in quantity. Cutbacks held final production to 200 planes, the last accepted in September.

* * *

The Miami Division grew out of Vultee Aircraft's purchase in July, 1942, of a small Florida aircraft parts company, Intercontinent Aircraft Corp. of Miami Springs. G. M. Williams, vice chairman of the Vultee board, was made president of this subsidiary, and another Vultee official, Don I. Carroll, was appointed executive vice president.

(Intercontinent was organized in 1940 by William D. Pawley and Commander Bruce Leighton. In 1942 the plant was under the direction of W. S. Laycraft, executive vice president, and R. E. Brown, works manager. Vultee directors authorized the purchase for $650,000 on July 16, 1942.)

Intercontinent manufactured various military products, including components for Convair B-24s and A-35s, Vought F4Us and the Lockheed P-38. The subsidiary corporation was merged into CVAC as a division in April, 1943. The plant was closed and property disposed of after the war ended.

* * *

On the basis of his observations in England in 1941, Maj. Gen. George H. Brett recommended that the Army Air Force set up modification centers where minor alterations could be made in aircraft without slowing assembly line production of basic models. (Over the next four years experience would show that nearly 100 per cent of bombers and 50 per cent of other types would require some degree of modification after leaving the factory.) The Materiel Division recommended that 10 such facilities be set up.

The first Consolidated center was opened in May at Tucson, 400 miles inland from San Diego, and initially was called a "dispersal base." It was organized as a division in August, 1942, reached an employment peak of 4,285 in February, 1944, and handled a total of 4,103 aircraft through September, 1945.

The Tucson facility, using an area adjoining the municipal airport, employed as many as six assembly lines on such jobs as installing improved gun turrets, fitting disposable fuel cells, or meeting a theater commander's request that the positions of navigator and radio operator be switched in the B-24s assigned to him.

Vultee Aircraft opened a center at Louisville, Ky., in the summer of 1942. It specialized in modifying B-24s and A-35s, had a top employment of 2,214 in March, 1944, and closed in September, 1945. (For a time the Fort Worth Division operated a center separate from the factory, but this was closed and the work diverted to Louisville in October, 1943.)

In the winter of 1942, Consolidated established a center at Elizabeth City, N. C., to modify Navy aircraft—PBY Catalinas, PB2Y Coronados and North American PBJs. (Here a housing crisis was alleviated by anchoring a floating hotel offshore. This was the 75-room Amphitrite, an old East Coast resort attraction.) Elizabeth City's peak payroll was about 1,200 in December, 1943. The center was closed in September, 1945.

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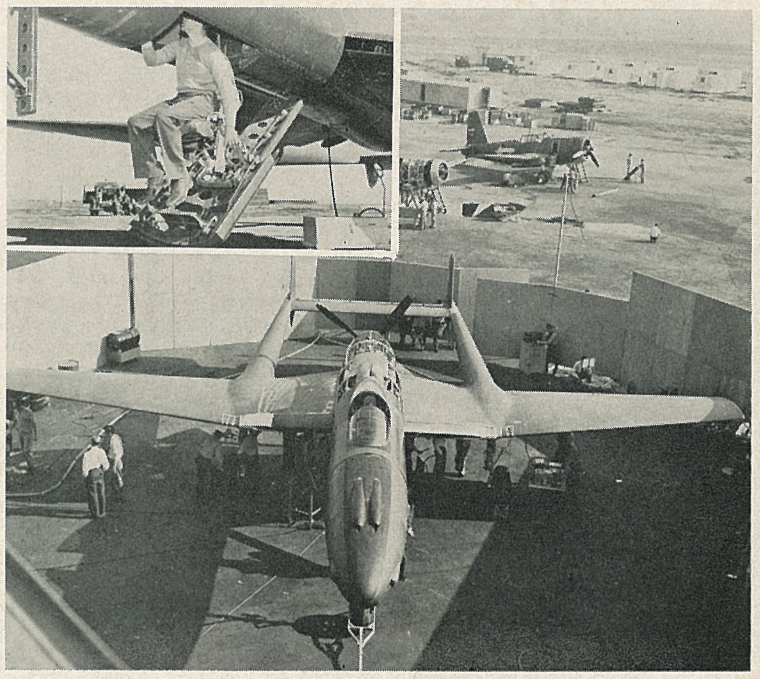
XP-54 Experimental Plane of '43 Had Novel Entrance For Pilot

Only two were built of an experimental one-place fighter produced by Vultee at Downey, Calif., in 1943, called XP-54 (Vultee model 70).

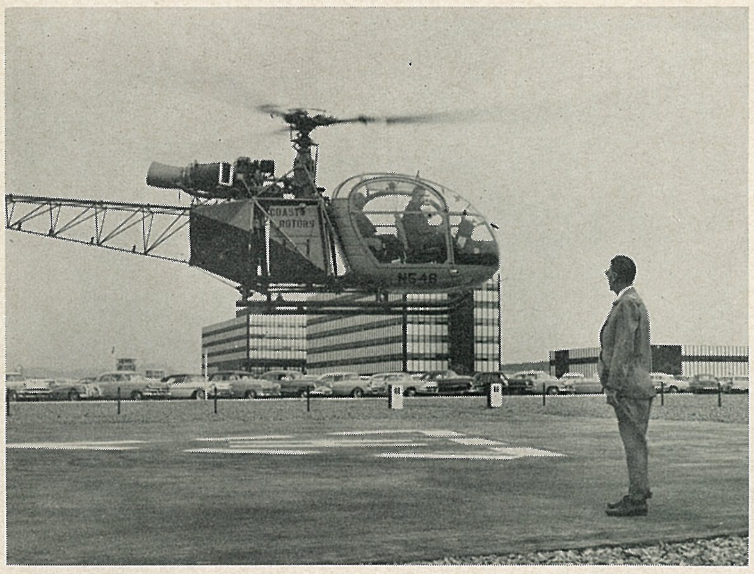
The plane had a twin boom with pusher propeller powered by Lycoming XH-2470-1 engine, 2,300 hp, producing maximum speed of 403 mph. It was 24-cylinder, liquid cooled, with air inlets located in the wing roots.

The pilot occupied a pressurized cockpit well forward of the low, gull-shaped wings. The cockpit was entered from below with an electrically operated elevator system raising and lowering the seat. For parachute escape, a breakaway system dropped the pilot clear of props and tail structure. Safety belt and shoulder straps were released automatically.

Flight testing utilized one of the earliest telemetering systems, the Vultee Radio Recorder, designed by Harvey D. Giffen and tested at Wright Field in the spring of 1942. Special pickups responded to variations in temperature, pressure, etc.



THE XP-54—Two of these were built by Vultee at Downey and delivered in 1943. Pilot's seat was raised and lowered mechanically (see inset) through bottom hatch. For bailout, breakaway mechanism let door swing down and back, dropping pilot clear of prop.



COMING IN—Astronautics became first local firm to have its own Helistop recently with completion of landing area west of the plant. Here W. L. Young, Astro's operations manager, stands by as "chopper" settles down on the pad.

Log Book Entries

Service Emblems

SAN DIEGO

Service emblems due during the period Sept. 1 through Sept. 15.

Thirty-year: Dept. 400-6, J. A. Bearss.

Twenty-five-year: Dept. 25-1, L. C. McEntee.

Twenty-year: Dept. 6, M. C. Brady, J. E. Hughes, R. C. Lane, J. W. McClain, W. T. Reineking, W. M. Sutherland, Armando Valencia; Dept. 7-10, H. R. Evans; Dept. 25, L. E. Farley, E. L. Powell.

Dept. 31, R. M. Cox, J. F. Kresser Jr., J. H. McCoy, L. B. Reeder, F. A. Riddle, B. J. Sanchez, Dennis St. Anna; Dept. 100, S. J. Barinka; Dept. 115, H. A. Wilson.

Dept. 133, I. R. Endicott; Dept. 135, I. L. Quillan; Dept 137, A. J. Nicholas; Dept. 292, C. C. Maupin, C. T. Uffen; Dept. 400-1, J. H. Allen, R. E. Barrett; Dept. 401, V. L. Boone Jr., J. A. Bottom, J. R. Harris, N. K. Johnson, C. L. Planchon, E. G. Prafke.

Fifteen-year: Dept. 6, H. B. Riggs, Donald Steagall; Dept. 14-4, D. B. Wilson; Dept. 25-9, Andrea Pinta; Dept. 44-2, R. L. Feeney; Dept. 100, P. D. Wayman; Dept. 142, H. A. Hollingsworth; Dept. 160, R. L. Bevier; Dept. 197-8, W. L. Koivisto; Dept. 201, J. H. Jelkren; Dept. 292-8, W. H. Greene; Dept. 401-5, Anthony Bonjorno, M. A. Jones.

Ten-year: Dept. 1-16, W. J. Geudtner Jr.; 1-24, L. J. Adams; Dept. 3-7, C. B. Wilhelm; Dept. 4-0, K. M. Johnson; Dept. 6, R. A. Close, Pearl Coven, J. E. Puhek, W. P. Richards, G. E. Zecca; Dept. 7-10, G. W. Carmichael, W. A. Huot.

Dept. 14, H. M. Bender, Ambra N. Hayworth; Dept. 21-1, W. F. Covington; Dept. 25, W. F. Bouchey, R. E. Haltmeier, J. W. Hyland, C. R. McNutt, A. A. Phillips, W. F. Southworth, W. F. Wilkinson.

Dept. 31, Jack Camfferman, E. G. Feddersen, Mancel King, Mary F. Remmerde; Dept. 34, Josephine J. Dunlap; Dept. 44, L. W. Atkinson, J. H. Harper, Juanita P. Russell; Dept. 69-1, Haroldine G. Liggett; Dept. 93-2, H. D. Lamb.

Dept. 101, J. W. Kennamer, E. C. Mackey, V. E. Poquette; Dept. 123, D. W. Back; Dept. 133, A. B. Pedroza; Dept. 135, W. P. Goodridge; Dept. 136, H. G. Bauer, W. E. Rainbolt; Dept. 139, E. H. Anderson, A. A. Burrell, L. D. Skelton.

Dept. 145, Dudley Day; Dept. 146, H. L. Officer; Dept. 160, A. C. Trujillo; Dept. 171, Claude Gage, S. M. Huskey; Dept. 180, H. W. Leyva, G. K. Wyche; Dept. 192-5, Gertrude A. Christian.

Dept. 201, Flora W. Pearce; Dept. 204, W. W. Baker Jr.; Dept. 206, L. A. Cariker; Dept. 215, A. D. Shaw; Dept. 216, Pearl A. Bassham; Dept. 280-0, G. W. Hill.

Dept. 288-8, S. W. Remund; Dept. 292-1, R. O. Smith; Dept. 400, R. B. Chambers, O. L. Miller, R. E. Palley, H. R. Zagner; Dept. 401, J. M. Jobes, M. A. Julio, J. H. Ladd, R. E. Webb, R. W. Wicklund, A. E. Yates.

HOLLOMAN AFB

Ten-year: Dept. 313-7, J. R. Martinez.

PALMDALE

Ten-year: Dept. 321-1, C. G. Fresener; Dept. 328-2, C. W. Taylor.

Retirements

SAN DIEGO

HULEN—Ada K., Dept. 216. Seniority date Feb. 12, 1951, retirement effective Aug. 31, 1960.

LARSEN—Carl F., Dept. 93-2, Seniority date March 17, 1941, retirement effective Aug. 31, 1960.

ROBINSON—Andrew, Dept. 3-1. Seniority date June 11, 1948, retirement effective Aug. 26, 1960.

ROHLER—John R., Dept. 31. Seniority date Aug. 8, 1958, retirement effective Aug. 20, 1960.

Personals

SAN DIEGO

The family of Beuhl E. Liebelt, Dept. 93-2, acknowledges with grateful appreciation the kind expressions of sympathy from Convair employees.

* * *

I am most grateful to friends of my husband, Ernest W. Watts, for the beautiful floral tributes and messages of sympathy sent from Dept. 400 and Dept. 215 at his passing.

Mrs. Ernest W. Watts and family.

* * *

I wish to express my heartfelt thanks to my friends in Astronautics Dept. 781 and Convair SD Dept. 216 (second shifts), for their many kindnesses following the loss of my granddaughter.

Inez Wells, Dept. 781, Astro.

* * *

My deepest appreciation goes to Convair friends of my late husband, John P. Hall, Dept. 288-2, for their generosity, messages of sympathy and beautiful flowers.

Mrs. John P. Hall.

Promotions

SAN DIEGO

Promotions to or within supervision effective Aug. 29.

Dept. 6-21, Engineering: To engineering publications asst. supervisor, J. A. Fergus.

Dept. 148, Jet Transport Major Mate: To asst. foreman, E. D. Brannon, T. R. McDaniel.

Lost & Found

SAN DIEGO

LOST—Blue bulky knit sweater last Tuesday (Sept. 6) at bus stop on east side of Washington St. overpass. Finder please call Thelma Gordon, Dept. 400, ext. 2957, Plant 1.

Births

SAN DIEGO

BOSCO—Daughter, Carolyn Grace, 8 lbs., 1 oz., born Aug. 26 to Mr. and Mrs. Gerard H. Bosco, Dept. 6. Doreene Bosco, mother, formerly Dept. 8-5.

WADE—Son, Charles Odell, 8 lbs., 1 oz., born Aug. 28 to Mr. and Mrs. Charles O. Wade, Dept. 140.

PALMDALE

CARR—Daughter, Mary Jean, 5 lbs., 2 oz., born Aug. 29 to Mr. and Mrs. J. G. Carr, Dept. 321-2.

KELLOGG—Daughter, Shelly Jo, 5 lbs., 15 oz., born Aug. 25 to Mr. and Mrs. R. J. Kellogg, Dept. 321-2.

RALEY—Son, Kelly Lee, 7 lbs., 6½ oz., born Aug. 30 to Mr. and Mrs. H. P. Raley, Dept. 323-1.

Deaths

SAN DIEGO

HALL—John P., Dept. 288. Died Aug. 30. Survivors include wife, Virginia Hall.

PALMDALE

SANDERS—C. E., Dept. 328-1. Died Aug 21. Survived by wife, Mabel S., and mother, Mrs. Mabel Hall of Ontario, Calif.

SD Club Dance This Saturday

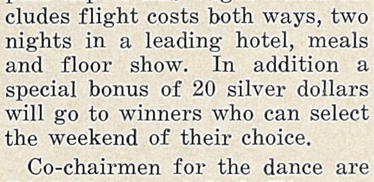
Annual Fall Dance of the Convair SD Management Club will be held next Saturday (Sept. 17) at the Hotel del Coronado.

Dress will be informal for the dance in the main ballroom with the Merle Carlson 11-piece orchestra playing between 9 p.m. and 1 a.m. In addition, a buffet will be served outdoors in the Bougainvillea Patio.

Tickets, priced at $4 each, are on sale at Management Club outlets. Sponsoring departments are quality control and material.

One lucky couple will win the top raffle prize, an all-expense-paid-trip to Las Vegas which includes flight costs both ways, two nights in a leading hotel, meals and floor show. In addition a special bonus of 20 silver dollars will go to winners who can select the weekend of their choice.

Co-chairmen for the dance are Ed Caldwell and J. C. Kice.



"Shall we spoil his whole day for him?"

Wells Winner In Badminton

Convair SD crowned a new badminton champion last month when Bob Wells (Air Force plant representative) took two straight games from Bill Johnstone (Dept. 6) 15-5, 15-13.

In the men's doubles finals, Johnstone and Jerry Henningsgaard (Dept. 7) defeated Wells and Walt Eastin (Dept. 7) 18-15 and 15-7.

A score of players entered the tourney played in the Balboa Park Federal Bldg. Dennis (Dept. 6) and Hilda Sealey took the mixed doubles bracket with 15-10 and 15-3 wins over Marie Henningsgaard and Wells.

In the consolation bracket, Bill Neal (Dept. 6) tipped Tom Richardson (Dept. 7) 18-17 and 15-10 in the men's singles; Ed Weichel (Dept. 7) took novice honors, defeating Ray Trent 15-8, 15-9. Jerry Henningsgaard won the round-robin singles.

Bill Johnstone (Dept. 6) is filling in for CRA Commissioner Tom Richardson for a two-month period. Badminton inquiries should be directed to Johnstone, ext. 2995, Plant 1. Organized play and instruction is held each Tuesday evening at 7:30 p.m. in the Federal Bldg.

Two More Classes In Hunter Safety Scheduled by CRA

Student demand for CRA-sponsored hunter safety courses has been so great that two more are planned during the next two weeks.

The first course will be held Sept. 19, 21 and 24; the second Sept. 26, 28 and Oct. 1. Monday and Wednesday classes will start at 7 p.m. and the Saturday session starts at 9 a.m.

Open to both Convair SD and Astro youngsters, the course is required by California state law for all persons under 16 before they will be issued their hunting licenses.

Arnold Schrock (SD Dept. 400), certified NRA instructor, conducts classes at the CRA Range, Gillespie Field in El Cajon.

Because of great demand, advance registration is now required. Contact Schrock at BR-7-4958.

Palmdale Ball Players End in Second Place

PALMDALE—Convair's entry in Los Angeles County Park and Recreation A Minor league was reaching for first spot at the close of league play only to be shut out by Lancaster All-Stars in the play-off.

Eagles emerged winner of third round to put them in a tie for first place with All-Stars, who had won the other two summer rounds. The Convair nine garnered runner-up trophy in the best two-out-of-three play-off vendetta that saw Lancaster All-Stars take the Sept. 1 doubleheader, 12-6 and 16-13.

After winning the first game the night before, 6-5, and dropping the next, Eagles tied the decisive final tilt, 13-13, at the end of the 7th. All-Stars killed Convair hopes the top of the 8th with three fast scores.

Convair Interceptors dropped their final AA Major league game Aug. 24 to North American, 5-4, to end the season near the cellar.

SD Softball Team First in Tourney

Convair SD Dept. 280 dropped Astro Dept. 344 in two straight softball games 9-4 and 7-1 to win the championship of the San Diego County Industrial Tournament last week.

The shop softball league title is being decided at Convair SD this week in a two-out-of-three-game series between Dept. 280 and Dept. 135. The play-off was delayed because of the county tournament.



WINNAHS!—Top Convair Palmdale golfers who led low scorers in recent CRA-sponsored handicap golf tourney are (left to right) J. L. Carton, third; R. A. Olsen, first; and W. H. Rumbaugh, second.

Convair SD Club Again to Host Annual IRC Archery Tournament

Convair SD Archery Club will host the annual Industrial Recreation Council Archery Meet for the fifth time on Oct. 9.

Still undecided last week was the shoot location. If the new Balboa Park Field Range is completed in time it will be held there, otherwise the Singing Hills Archery Range will be pressed into service.

SD Archery Club members are helping with the Balboa Range construction and hope to meet the Oct. 9 deadline. Final decision on the shoot site will be made this week and information will be available at the SD and Astro employee services offices.

Registrations for the field shoot will be taken between 9 and 9:45 a.m. Four divisions, men, women, intermediate and junior, are planned. Winners will receive trophies.

Coordinator for the meet is Al Phipps of the SD Archery Club. Entry fee for Convair SD shooters will be paid by CRA if registration is made before the Sept. 23 deadline.

Astro archers who wish to participate should contact A. D. Stone, commissioner, ext. 3341, Astro.

Free Spanish Classes Set

Two new CRA-sponsored Spanish classes, for beginners and intermediates, will start next week in the Balboa Park Conference Bldg.

Open to all Convair SD employees and family members the courses are planned to give students a working knowledge of conversational Spanish. Instructor is Jim Hardison (Dept. 15).

The beginners' class will meet for the first time next Monday (Sept. 19) and intermediate students will gather Thursday (Sept. 22). Classes will be held on regular Monday and Thursday evening schedules, between 7 and 9:30.

Both courses will run for approximately 15 weeks. To register either attend the first class or contact employee services, ext. 1245, Plant 1. Courses are free with CRA underwriting cost.

Rules of grammar, syntax and other formal characteristics of the language will not be emphasized, although they will be discussed as necessary. Customs, etiquette and other tips for the visitor to Mexico are explained.

Academy Discount Now Discontinued

Convair Recreation Associations at San Diego and Astronautics have discontinued sponsorship of reduced-price admissions to the Academy Fine Arts Theater, 3721 University Ave.

At present the Industrial Recreation Council is negotiating for a discount arrangement at other show houses devoted to "family-type" movie fare. IRC is expected to announce its choice in the near future.

'SATCHMO' ARMSTRONG TO APPEAR AT RUSS

Louis "Satchmo" Armstrong and the All-Stars will invade Russ Auditorium Wednesday (Sept. 21) at 8:30 p.m. for a one-night stand. For tickets, priced between $1.95 and $3.95, call Thearle's, BE-9-8122.

DAUGHTER WEDS

Sharon Elaine Martin, daughter of James L. Martin, SD Dept. 31, and Patrick Leon Abbott were married Sept. 2 in the chapel of St. Paul's Episcopal church, San Diego. Following a wedding trip, Abbott will continue his studies at State College.

SD Water Skiers To Meet Carlsbad

Water skiers from Convair SD will meet the Carlsbad Ski Club this Sunday (Sept. 18) in a special competitive event at Carlsbad.

A slalom meet early in the morning will be followed by regular skiing. For details, call Herb Wexler, BR-8-3780.

Saturday and Sunday skiing will continue through the end of September, between 9:30 a.m. and 1:30 p.m., off the east shore of Tierra del Fuego.

October Golf Event Set for El Camino

Next stop on the SD CRA golf circuit will be El Camino Country Club Oct. 8-9.

Entries can be made with Ken Wulfemeyer, commissioner, starting Sept. 19 at ext. 1705. Deadline will be Sept. 28.

Final rounds in the match play championships now under way will be Sept. 25 at Circle R.

New Course Starts For Square Dancers

PALMDALE—Antelope Valley people with a yen to learn the fine art of square dancing may enter a beginners' course starting this Sunday evening (Sept. 18) in the CRA Clubhouse, Palmdale.

Sponsored by Joshua Jumpers, CRA square dance group, classes will be instructed by Carter Humphrey, 7:30-10 p.m. Enrollment will be taken at the first three class sessions.

40 Enter Tourney At Service Parts

Forty entries in a Dept. 15 (service parts) table tennis tourney were led by Donald Olson and Bob Carpenter who walked off with men's doubles honors.

Steve Braxton, CRA representative, reported that Judy Carpenter took women's singles (winner's bracket) and Pat Ribeiro took similar honors in the loser's bracket. Trophies were awarded by CRA. Service parts competitions are scheduled soon in washer pitching and horseshoes.

Meetings Planned For Toastmasters

Convair Toastmasters #457 have scheduled meetings Sept. 19 and Sept. 26 both starting at 6 p.m. at the Aztec Steak House.

The first will be the regular club meeting, the second will spotlight debates. New officers were elected by the Convair Toastmasters early this week.



IN TUNE—Looking over selections in new music library are (from left) William Vogel, Choralaires' director; Jo Anne Bray (Dept. 6) and Richard Musterait (Dept. 188), president of the vocal group.

First Rehearsals Slated As Choralaires Organize

Convair SD's mixed choral group, the Choralaires, are searching for new voices as they prepare to start their eighth season Monday (Sept. 19) with a 7:30 p.m. rehearsal in the CRA Clubhouse on Pacific Hwy.

"We hope this year to form a 40- or 50-voice chorus. Membership is open to all Convair SD employees and family members. Musical experience is not required and auditions or tryouts are not required," W. A. Vogel, director, said last week.

"Both new and former members of the Choralaires will be starting off together this year as we have acquired an all-new music library," Vogel added.

The director also stressed that attendance at the first rehearsals is extremely important. They will be held each Monday at 7:30 p.m. in the CRA Clubhouse, Pacific Hwy.

Vogel has taught voice and music for more than 30 years. A graduate of Denison Conservatory of Music, he also studied composition and musicology in Paris, London and Leipzig.

He has been with the Choralaires almost since their formation, eight years ago. Each year the vocal group makes a number of company and civic appearances.

For further information, contact Vogel, ext. 1111, Plant 1, or Martha Woodberry, commissioner, ext. 1245, Plant 1.

Rockhounds Plan Pala Chief Mine Jaunt This Month

Rockhounds from Convair SD will hunt tourmaline and quartz crystals when they jaunt on a one-day field trip Saturday (Sept. 24) to Pala Chief Mine.

The expedition destination is located in the Mt. Palomar area. Departure time and meeting place can be obtained by calling either Danny Whorton, ext. 426, Plant 1, or B. R. Swarts, ext. 634, Plant 1.

Reopening of the Rockhound Shack on Pacific Hwy. was also announced last week by Whorton, CRA commissioner. Hours are 7-9 p.m. Mondays and Tuesdays. For benefit of second-shifters, the shack will also be open Tuesdays, between 12:30 and 2:30 p.m. Instructors will be present.

10 Shooters Place In Pistol Tourney

Ten Convair marksmen claimed honors at a CRA Pistol Club shoot Aug. 28.

Carl Hornburg (Dept. 139) and Jim Halfacre (Dept. 180) placed first and second in the master class with respective scores of 286 and 285. Bill Dittmann (Dept. 6) led the experts with 278 points, followed by Ralph Benson (Mrs. Benson is in Dept. 250) with 268.

Sharpshooter honors went to Harvey Ingalls (Dept. 6) who scored 262 points and A. B. Carlson (Dept. 68) who tallied 261. Ash Bishop III (son of Ash Bishop, Dept. 401-5) led the marksman class with 253 points. Arley Utter (Dept. 129) was second with 237.

Top three guns in the centerfire short national match were B. L. Broadway (Dept. 115), Ralph Picard (Dept. 7) and Dittmann.



MAJESTIC — Filtered sunlight streaming through redwoods in Sequoia National Park creates majestic mood in photo snapped by Convair SD Camera Clubber Alan Henney. "Vacation" shot was entered in recent club quarterly contest.

CRA Sports & Recreation Convairiety

Beginning Charm Course Will Start Next Tuesday

There are still a few openings for Convair San Diego women in the beginning charm course which starts next week (Sept. 20).

Any Convair SD woman, whether employee, wife, or daughter, may enroll at SD employee services, both plants, upon payment of $8.50, entire cost for the six-week course.

Classes will be held Tuesday evenings, 7 to 9 p.m., in the executive dining room of the new Convair cafeteria on Pacific Highway, said Martha Woodberry, CRA commissioner of women's activities.

CRA subsidizes the self-improvement courses offered Convair SD women the last four years. Instructor is Edith Antelline, charm school director, who coaches students in fundamentals of good grooming, diet and nutrition, figure analysis, posture, business and social etiquette, make-up and hair styling, and basic wardrobe instruction.

Classes are limited to 50 women with registration accepted on a first-come, first-served basis. Enrollment also may be made through Bessie Cooper, ext. 100, Fordham St.; Virginia Cannon, ext. 2125, Rose Canyon.

CRA Calendar

(Convair SD Recreation Association has some 40 activities in operation. For information on SD sports, call CRA headquarters, ext. 1245, Plant 1.)

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ARCHERY—Registration open at CRA office, ext. 1245, for annual IRC archery meet, Oct. 9. Deadline Sept. 23.

BADMINTON—Organized play and instruction Tuesday evenings, 7:30 p.m., Federal Bldg., Balboa Park.

BASEBALL—Tryout for city league team Sunday (Sept. 18), 10 a.m., Mission Bay Youth Field. Call Pete Beyrer, ext. 1245, Plant 1.

BRIDGE CLUB—Next session Tuesday (Sept. 20), 7:30 p.m., Hotel Barcelona, 326 Juniper St.

CHORALAIRES — First rehearsal of season Monday (Sept. 19), 7:30 p.m., CRA Clubhouse, Pacific Hwy.

COIN CLUB — Meeting Sept. 20, 7:30 p.m., Hearing Aid Society Bldg., 3843 Herbert St.

FISHING CLUB — Meeting Sept. 20, 7:30 p.m., CRA Clubhouse, Gillespie Field.

GOLF — Entries open from Sept. 19-28 for CRA sweeps, El Camino Country Club Oct. 8-9. Call ext. 1705, Plant 1.

GUN CLUB — Registration open for new hunter safety courses starting Sept. 19 and 26. Call Arnold Schrock, BR-7-4958.

PISTOL CLUB—Next regular monthly shoot Sunday (Sept. 25) 9:30 a.m., San Diego Police Pistol Range.

RADIO CLUB—Meeting tomorrow (Sept. 15), 7:30 p.m., Harbor Drive headquarters.

ROAD RUNNERS — Registration closes tomorrow (Sept. 15) for Trailer Rally, Del Mar Fairgrounds, Sept. 29-Oct. 2. Call Pete Beyrer, ext. 1245, Plant 1.

ROCKHOUND CLUB — Rockhound shack, Pacific Highway, now open Monday and Tuesday evenings, 7-9 p.m.; Tuesday afternoons, 12:30-2:30 p.m. Field trip to Pala Chief Mine Sept. 24.

SQUARE DANCING—New beginners' class opens tonight (Sept. 14), 8 p.m., Uptown Hall, 30th & Meade Ave. Party night Sept. 24, 8 p.m., American Legion Hall, 4061 Fairmount Ave.

WATER SKI CLUB—Slalom competition with Carlsbad Ski Club at Carlsbad Sept. 18. For information call Herb Wexler, BR-8-3780.

WOMEN'S ACTIVITIES—Beginners' charm school starts Sept. 20, 7-9 p.m., Convair cafeteria executive dining room, Pacific Highway. Registration still open at SD employee services, both Plant 1 and 2.

Square Dance Class Tonight For Beginners

Early response indicates that a good number of Convair SD persons will be on hand tonight (Sept. 14) for a new square dancing beginners' class in the Uptown Hall, 30th and Meade Ave.

It will be the only class sponsored by the CRA Hoedowners during the next year. Registrations will be taken at the first three 8 p.m. classes on Sept. 14, 21 and 28.

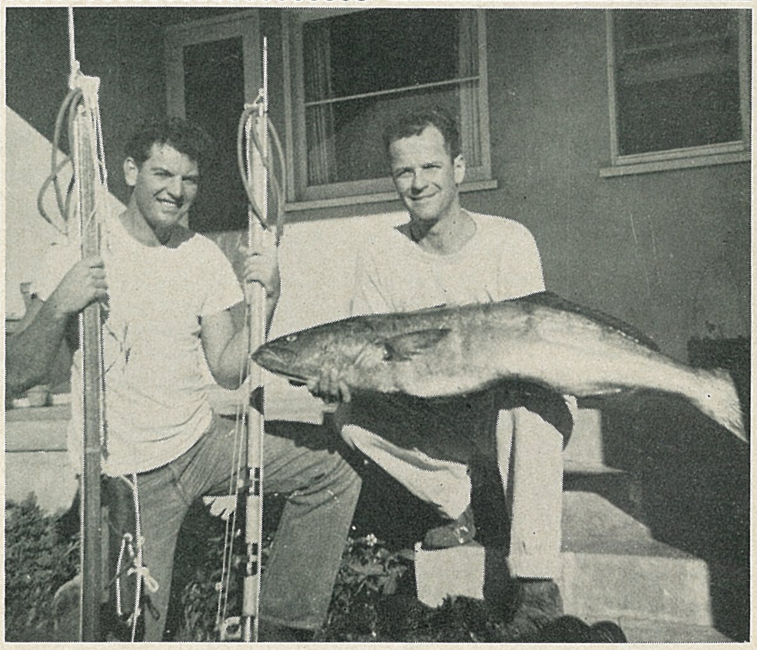
"Indications are that there may be some shortage of men in the class now forming so we especially want to encourage our male population to give square dancing a try," Maury Scholz, commissioner, said last week.

"We're reasonably sure most persons will enjoy themselves as attested by more than 2,500 who have graduated from Hoedowner-sponsored beginners' classes during the past 10 years," he added. Scholz can be reached at ext. 2916, Plant 1, or CY-5-3806.

Next party night is scheduled Saturday (Sept. 24) at 8 p.m. in the American Legion Hall, 4061 Fairmount Ave. It will be a "homecoming" affair for former members and other old-timers. Chuck Carrol and Don Browne will share the mike with guest callers.

Tickets Discounted For Circus at Park

Discount exchange tickets for the Ringling Bros., Barnum and Bailey Circus at Westgate Park will be available starting tomorrow (Sept. 15) on a first-come, first-served basis at SD employee services, both plants. With Industrial Recreation Council discount, $3.50 seats cost $2.50; $2.50 seats are $1.75 and children's (under 12) price is reduced from $1 to 75¢. A limited number of tickets are available for each of the following days: Sept. 22, 23, 24 and 25.



GONE FISHIN'—Harry Ruscigno, president of Delta Divers (left), and Al Jones (Dept. 95) display 35-lb. white sea bass Jones speared on recent club outing.



CLUB FIRST—Marlin caught by Larry Thrall (husband of Evelyn Thrall, Dept. 3) was first registered in CRA Fishing Contest. Thrall used medium tackle to catch the 166-pounder.

Four Claim Prizes In Fishing Contest For CRA Anglers

All three prizes were claimed in the August fishing contest sponsored by CRA and the number of total entries has increased considerably, R. W. Menzie, Fishing Club commissioner, said last week.

The $15 first prize went to W. J. Rhine (Dept. 6) who landed a 9-lb., 14-oz. bonita. An 18-lb., 8-oz. yellowtail placed second ($10) for Glenn Grantham (Dept. 133). Tied for third place ($5) with 15-lb. yellowtails were George Clarke (retired) and George J. Kureri (Dept. 401).

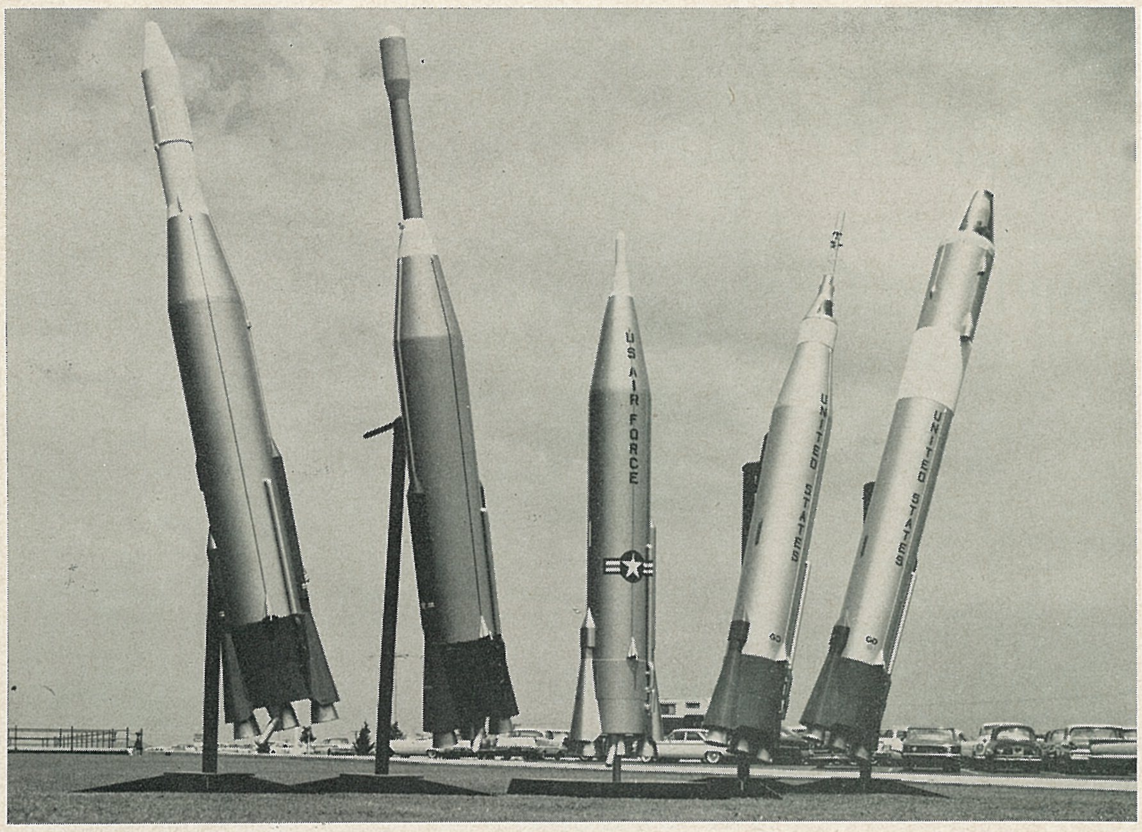
Menzie reminded that contest winners must pick prizes up at the Sept. 20 Fishing Club meeting at 7:30 p.m. in the CRA Clubhouse, Gillespie Field. Main topic of discussion at meeting will be the annual Father-Son Fishing Trip.

'Homecoming' Set For SD Coin Club

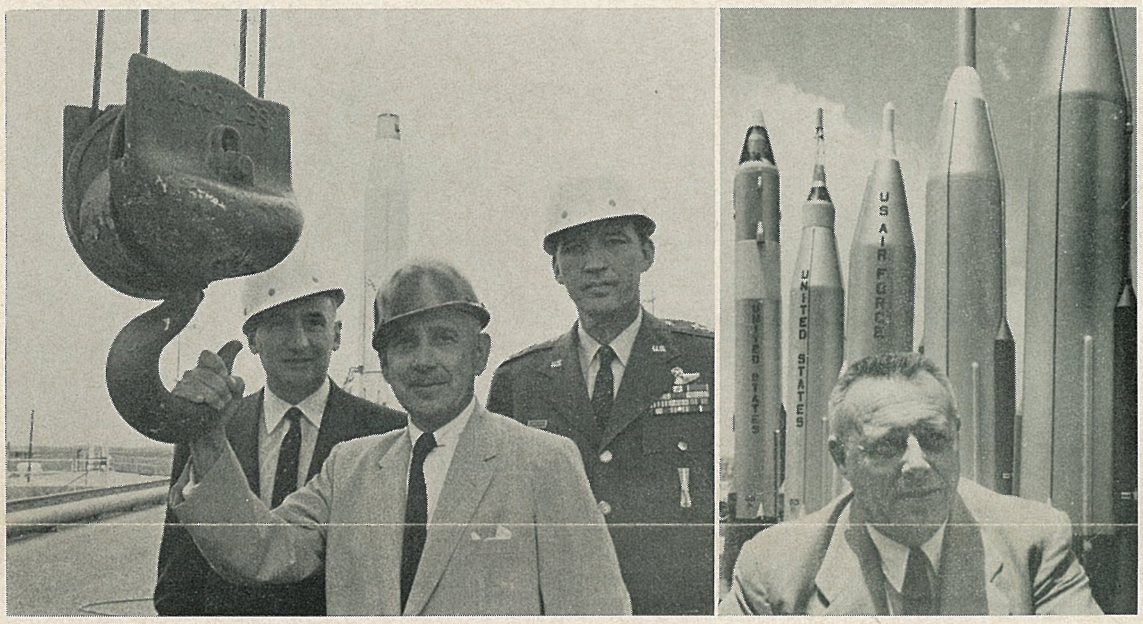
Sept. 20 meeting of Convair SD Coin Club will be a "homecoming" affair for former club members, charter members and past club officers, R. A. McCracken, club president reports.

"With attendance running in the 40-50 bracket our newer members are anxious to talk with the 'old hands,'" McCracken said. Especially invited are those who were members between 1953 and '57.

The 7:30 p.m. meeting in the Hearing Aid Society Bldg., 3843 Herbert St., will be rounded out with a coin auction, door prizes and refreshments.



ATLAS FAMILY—Models (1:10 scale) of Atlas family of space vehicles (models range from about 7½ ft. to 12 in height) pose on Astronautics' Bldg. 3 lawn, parking lot and part of fire pumping station in background. From left they are: Atlas-Agena, Atlas-Able, Series "D" ICBM, Atlas-Mercury, Atlas-Centaur. Astro photographer Henry Kierstead used wide angle lens to achieve effect.



HONORED—Representing three organizations which received "The Collier Trophy Award" are, from left, Dr. Simon Ramo, former head of Space Technology Laboratories, J. V. Naish, president of Convair, Lt. Gen. Bernard Schriever, USAF. In photo at right is Karel J. Bossart who headed Convair's first long-range missile program, now Astro technical director.—Look photos.

Quicker Than Whiplash, F-106 Opens Bomb Doors, Fires Falcons, Retracts

An F-106A missile bay containing a complete armament launching system which, when set in motion, can do everything—even to firing the missiles—has been doing yeoman duty at Convair SD during development and production of Convair's sophisticated jet interceptor.

Under an Air Force contract the F-106 armament test stand was designed and constructed at Convair San Diego three years ago. It has been in constant use since 1957 to check compatibility of the Hughes-developed Falcon missiles and the Convair aircraft launching system.

The realistic missile bay goes through the complete armament system cycle—swings open armament bay doors, extends launchers, retracts rails, slams doors closed with the same split-second timing as an actual plane in flight.

Set up in systems dynamics test lab at Plant 1, Bldg. 72, the 20-ft. armament bay section of an F-106A was built by experimental from production plane parts. Pneumatics, electrical, mechanisms, body, and avionics design engineers combined efforts under L. D. Hamlin, coordinator of the task. SD armament and avionics coordination group under W. A. Pickens had prime responsibility for the cooperative project. Systems dynamics test engineers worked closely with design engineers and now supervise test operations.

"Data recorded by instrumentation on the test stand has been most valuable in support of the armaments system design for the F-106, and progressively, its improvements and refinements," said Hamlin. "Actual operating components and systems have made parallel testing possible for changes resulting from Convair and Air Force flight tests, conserving valuable flight test time."

Highlight in the test stand's career was actual firing of Falcon missiles at NOTS, China Lake, Calif., in December, 1957. It also was used as an assist to Hughes Aircraft Co. to provide loads data during missile design, said Hamlin.

Its main duty now, as F-106s roll off the Convair production line, is to support the interceptors as they go into service with Air Force squadrons throughout the country.

Actual operation of the stand is done by M. C. Brady's systems dynamics test lab section. John Bard was in charge of initial test runs, including the China Lake firings, with R. G. Wingfield carrying on present tests.

Modification Of More 106s Authorized

Modification of 26 more test F-106s to combat-ready condition was authorized this week under a $12,746,700 contract with San Antonio Air Materiel Area.

It will include conversion of 20 single-place F-106As and six two-place F-106Bs.

An initial $8 million contract called for modification of eight F-106As and one F-106B, and purchase of long lead time items for the other 26 planes.

Modification work is being performed at SD's Plant 2 with the planes being phased into the regular production line. Work involves replacing present nose and cockpit sections with new sections. They will be equipped with supersonic ejection seats, vertical display instrument panels, updated MA-1 electronic guidance and fire control systems with horizontal situation indicator and automatic modes for navigation and attack.

First of the modified F-106s will be delivered in January, 1961.

CALIF. TO RETURN TO STANDARD TIME

California plants of Convair will return to standard time at 2 a.m. Sept. 25. All clocks will be put back an hour at that time.

Atlas Missile Selected For Top Aviation Award

Aviation's pre-eminent aviation award, the Collier Trophy, has been awarded to the U. S. Air Force, Convair and the Space Technology Laboratories, Inc., for development, testing, producing and putting into operation the Atlas missile.

The announcement was made this week in Look Magazine.

The trophy, established in 1911, is presented annually by the National Aeronautic Association. Look has served as a co-sponsor of the award for the past four years.

This is the first time the award has been in the field of astronautics. Originally the trophy honored outstanding achievement in aviation but is now given for "the greatest achievement in aeronautics or astronautics in America, or with respect to improving the performance, efficiency, safety of air or space vehicles, the value of which has been thoroughly demonstrated by actual use during the preceding year."

"So rapidly are the boundaries of flight and space exploration expanding that the great accomplishments in this field now are realistically recognized as the results of industrial team efforts, rather than achievements to be credited to any single individual," Ben Kocivar, Look staff writer, commented.

Look's announcement traces the history of the Atlas project and states that "Atlas has earned its title of the free world's No. 1 space booster for years to come." Given credit for the major engineering concepts of the Atlas, is Karel J. (Charlie) Bossart of Convair "who headed Convair's first long-range missile project in 1946 and kept company interest in it alive during the lean years of 1947-51. . ."

Radiation Effects Supervisor Chosen Atom Society Head

E. L. "Burk" Burkhard, supervisor of radiation effects analysis group, was recently elected chairman of the newly organized North Texas Section, American Nuclear Society.

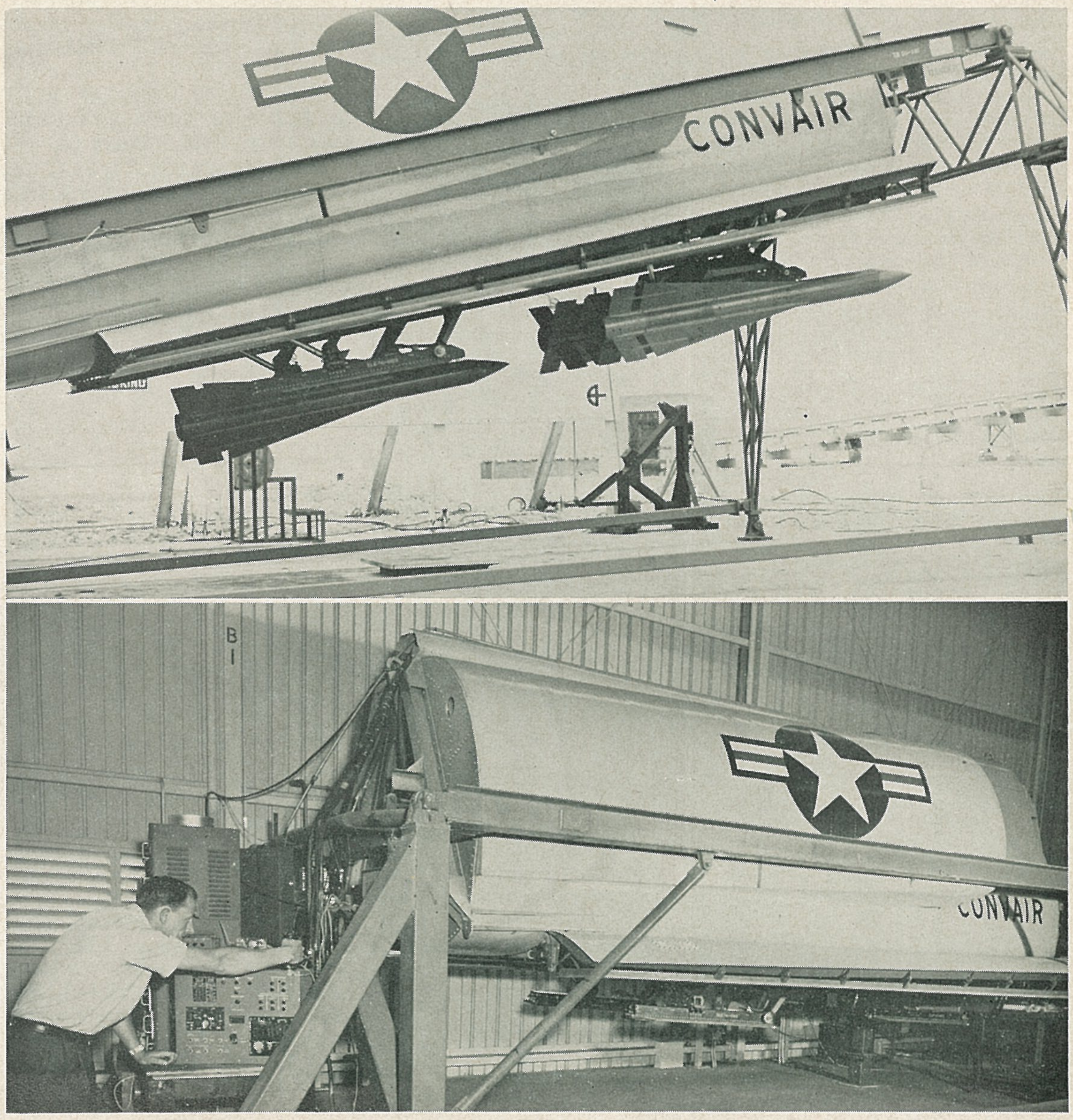
Other Convair FW people also fill key roles:

Dr. A. B. Hoefelmeyer, senior nuclear engineer, was elected secretary; Dr. Rube Field, design specialist, and Dr. E. Leigh Secrest, chief of applied research, accepted posts as advisers.

Dr. C. W. Tittle of SMU will discuss SMU's nuclear engineering program and conduct a tour of facilities at the society's Sept. 30 meeting. Session gets under way at 8 p.m. in Caruth engineering building.



"I didn't find out she was a lady wrestler until after our date."



FAST ACTION—Too fast for eye to follow is F-106A during firing of Falcon missiles. Above are views of armament test stand which proved perfect "mate" of Convair launch system and Hughes missiles during actual firings at China Lake, Calif. Below, R. G. Wingfield pulls trigger to set system in motion. Doors open, launchers and missiles appear and retract, all in flicker of an eyelid.

C-V CONVAIR

Published every other Wednesday.

GD GENERAL DYNAMICS

Convair Division of General Dynamics Corporation.

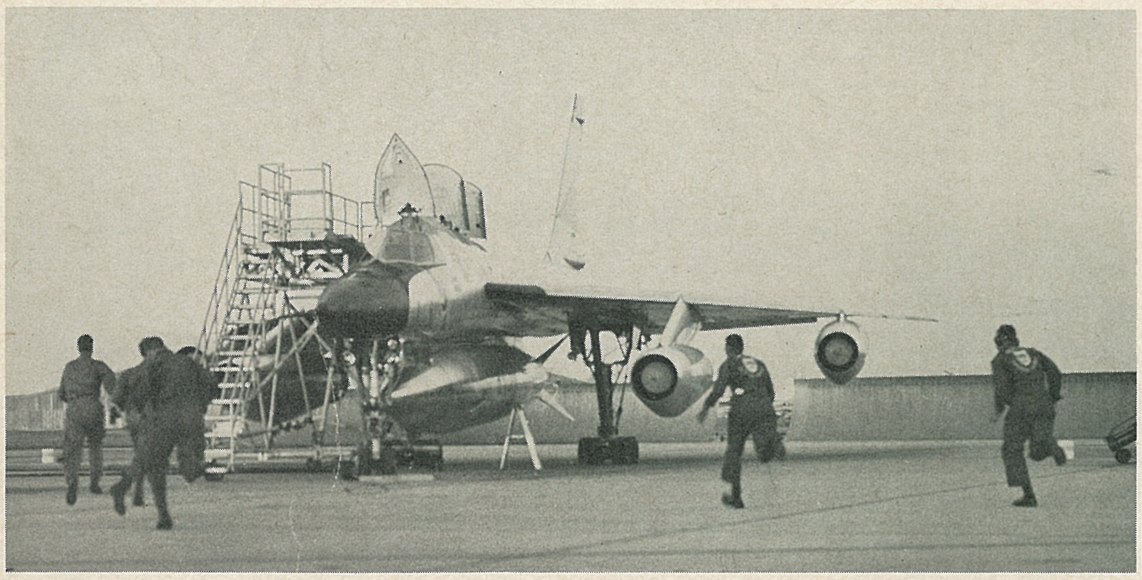
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San Diego
Palmdale - Holloman
EDITION

San Diego news office: Plant 1, Bldg. 32, ext. 1071.

Vol. 13, No. 20 — Wednesday, September 28, 1960

SAN DIEGO, POMONA, ANTELOPE VALLEY, CALIF. — ASTRONAUTICS OFF-SITE BASES, FORT WORTH, TEX.



SCRAMBLE—Maintenance crews, left, and flight crews break for waiting B-58 and first flight in 1960 SAC Combat Competition at Bergstrom AFB. B-58s chalked up best pair of radar bomb scores and best individual high-level navigation run. Performance in competition was considered tremendous accomplishment in view of brief operational experience. This was first time B-58s have competed.

Division Called On For Greater Effort In View of Losses

Following is excerpted from a notice to supervision from Robert C. Loomis, San Diego operating division manager, issued late last week.

"Frank Pace Jr., Chairman of the Board, explained in a report to share owners dated Sept. 22, 1960, the adverse impact of Convair-San Diego operations on the financial statement of General Dynamics Corporation.

"Following are excerpts from the report which I feel should be called to your attention:

* * *

"'For the past few years, research and development expenses and other costs in connection with the jet transport program have materially affected General Dynamics' over all earnings. These charges against earnings **to date** have come to approximately $125 million or $60 million after income taxes.

"'The (additional) write-off authorized by your Board of Directors will be made as of Sept. 30, 1960, and will consist of the following:

	Gross (in millions)	Net After Income Tax
Future research, development expenses	$16.1	$ 7.7
Excess of mfg. costs over proceeds from sales	66.4	31.9
Write-down to salvage value of used aircraft in connection with jet sales	14.0	6.7
	$96.5	$46.3

"'The most significant aspects of this action are these:

"'Because of this substantial charge against earnings, the Corporation will report a net loss for the nine months ended Sept. 30, 1960, of approximately $26 million. However, with the excess costs of the 880/600 program behind us, the fourth quarter will show profits which will materially reduce this loss.'

* * *

"I am sure you agree with me that we cannot permit the San Diego Division to operate in a manner which will continue to drain the Corporation financially. We can, with your

(Continued on Page 4)

Bring Lunch and Watch Fire Fighter 'Rescues'

Realistic crash fire demonstrations with dummy pilots rescued in the nick of time from a flaming fuselage will be part of the program planned by Convair SD fire department in observance of national Fire Prevention Week, Oct. 9-15.

They will be held at the compass rose, west of Gate 5, during lunch periods on three days, Oct. 10-11-12, so that all Convair SD people may have a chance to see Convair's firemen in action, said Fire Chief I. K. Wisley.

Convair SD people can now buy compact dry chemical fire extinguishers for home, car, or boat protection at safety cribs, Plant 1 or Plant 2, said M. C. Val Dez, chief of injury concern and control. Wholesale price for Convair purchasers is $12.95 plus tax. Refills are $4.10 plus tax.

Times are: Oct. 10 — 11-1:30 a.m.; Oct. 11—11:30 a.m.-noon; Oct. 12—noon to 12:30 p.m.

Convair buses will leave the south end of Bldg. 7, Plant 1, at the beginning of each lunch period, stopping at regular points until they turn out of the plant at Gate 5. Demonstrations last about 15 minutes so that Convair spectators will have plenty of time to get back to their plant locations before regular lunch times end. Everyone is urged to bring his lunch along and eat en route or at the compass rose site.

A display of fire and rescue equipment will be set up at the west end of No. 2 overpass, Plant 1, during the entire week, said Wisley.

"Because of constant diligence of the company fire department Convair SD, one of the largest industrial plants in Southern California, enjoys one of the smallest fire loss records of any plant of comparable size," points out F. G. Merritt, chief of industrial security. "Our constant surveillance of perpetual hazards of normal industrial activity covers all phases of fire prevention codes."

Responsibilities of the Convair SD fire department include such specific duties as regulation and issuance of welding permits to control use of welding equipment, blow torches, and other fire-producing equipment; clock patrol through every plant building during off-production hours; constant stand-by at F-106 and jet transport field operations areas during fueling or refueling of aircraft; check of fuel tanks of planes moved inside buildings to be sure there is no inflammable material.

Other hazardous jobs requiring the support of the SD fire department are transfer of propane from transit tank carriers into storage tanks and spray painting of large aircraft in certain areas. During these operations, areas are roped off and patrolled by firemen.

"Thus, by constant vigilance, we have been able to keep fire losses at Convair SD at the lowest minimum," concluded Merritt.



FIRE QUENCHER—Fire Chief I. K. Wisley approves new-type fire extinguisher held by M. C. Val Dez, SD chief injury concern and control, as SD fire department plans Fire Prevention Week observance. Extinguishers are now on sale at plant safety cribs.

Interceptor Unit Moved

Interceptor service section at Convair San Diego is now relocated in Bldg. 4 at Plant 1.

Fifty people of R. E. Sommers' group made the shift across the street from Bldg. 19 to be located on the east mezz of Bldg. 4 within the SD plant. They now occupy the D-E area from Col. 11½ to 13. Phone extension remains the same, ext. 2711.

Transport service function will move into the area vacated by interceptor service on the second floor of Bldg. 19 within the next week or so. L. J. Bordelon, chief of transport service, will have his office in the northwest corner area, while R. K. Hall and Mel Clause will occupy part of Room 228 on the east side of the elevators.

O. W. Harper, acting manager of customer service, will be in the Room 228 location.

Present transport service area, directly in front of the second floor elevators, will be remodeled for occupancy by customer representatives.

SD CLUB INVITES CHILDREN ON TOUR

Kids will be guests of honor at a special Convair San Diego Management Club event Saturday (Oct. 15) planned especially for children of members.

Program highlight will be a close-up tour of the 880 line.

Fathers and youngsters will meet at 12 noon in the new cafeteria adjacent to Bldg. 19 and enjoy a buffet lunch, ice cream and soft drinks. The agenda calls for entertainment between 1 and 2 p.m. on the cafeteria patio, a raffle until 2:30, then the 880 tour.

Tickets are on sale at club outlets priced at $1 for adults and 50c for children. Fabrication departments at Plants 1 and 2 are sponsors under co-chairmen R. A. Davis and A. E. Kemp Sr.

Convair Men Teach Aircraft Classes

Two Convair SD men are instructing aircraft classes at San Diego Junior College during the current year.

Paul Philip of Dept. 15-4 is teaching the two-semester course in jet aircraft systems. Among his students are at least 15 Convair engineers and flight personnel. L. A. Scrivener of production flight (Dept. 6) is instructor of the flight engineering course.

Convair SD customer service men now are helping coordinate a JC stewardess training program.

SD Instructors Off to Formosa For CAT Training

Leaving for Formosa next week to conduct Convair 880 maintenance training for Chinese crews will be four Convair SD field representatives from customer service.

In response to the request of Air-Asia, Ltd., purchaser of an 880-M jet transport, men of Civil Air Transport who will be flying and maintaining the Convair jetliner, will receive instruction at their home facility.

Phil S. Smith, John Crenshaw, John Nowak, and William Lewis, all SD customer service instructors, will be at Taipei, capital city of Formosa, for six weeks to instruct maintenance crews on their home ground. In November C. L. Johnson and C. J. Falkenthal, production flight engineer-instructors, will be there to train flight crews.

As the SD men teach English-speaking classes, Y. S. Hsu, supervisor of maintenance training of Air-Asia, Ltd., parent company of CAT, will give the same instruction to Chinese-speaking students. Hsu was at Convair SD recently taking the maintenance training course given Japan Air Lines men, in addition to other training to meet his specific needs. He also traveled to General Electric Co. plant at

(Continued on Page 2)

SD Offering Series of Courses In Psychology, Human Behavior

Five management and professional courses, planned by Convair SD educational services for SD supervisory personnel, will start within the next two weeks at SD operating division.

All courses, taught by qualified specialists in each field, will be held in the SD plant after work hours. There is no fee, but no credit toward degrees will be given.

Registration is open now at executive and supervisory development section office, Bldg. 16, Plant 1, ext. 1672, for:

"Psychology in Industry," with special emphasis on problems encountered by engineering supervisors; Dr. R. Penn, SD State College professor of psychology, instructing. Two separate classes will be Mondays, 5-8 p.m., starting Oct. 3; and Tuesdays, beginning Oct. 4, 7-10 p.m., Room 338, Bldg. 5.

"Understanding Human Behavior," Dr. E. Aiken, Cal-Western University psychology professor, instructor. Weekly classes will be Tuesdays (for night shift), noon-3 p.m.; Wednesdays (for day shift), 5-8 p.m., Room 19, Bldg. 19. First sessions are Oct. 4 and Oct. 5.

"Technically Speaking," individual instruction for presentations and public speaking for managerial and supervisory personnel, L. E. Graves of Kintel, instructor. Classes will be Thursdays, 7:30-9 p.m., starting Oct. 6, Bldg. 19.

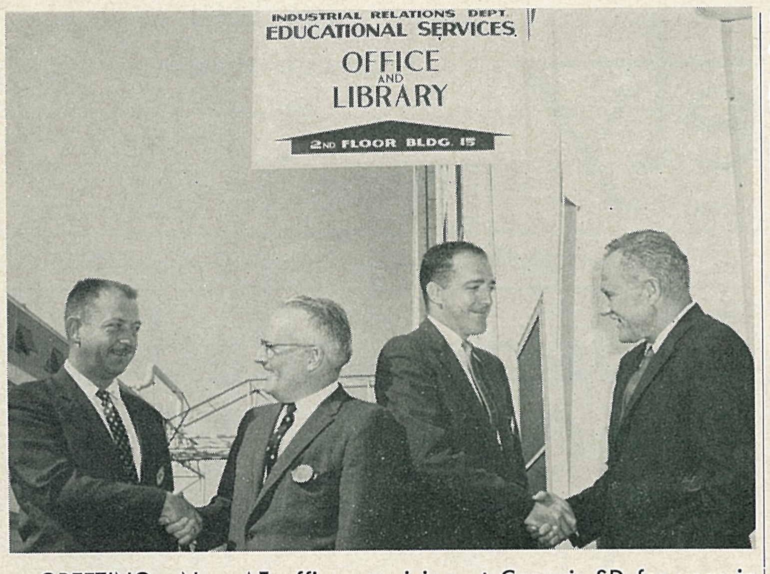
"Report Writing," organization and meaning of reports, Jack Block, publications director of Non-Linear Systems, instructor; Mondays, 4:45-5:45 p.m., Bldg. 19. First class Oct. 10.

"Effective Speaking for Supervisors," taught by E. K. Povenmire of San Diego State College speech department, is planned for the near future. For starting date and time, and other information on all courses call Frances Mishall, exts. 1671-1672.

Employee Services At Plant 2 Moved

Employee services at Convair SD Plant 2 made a shift across the hall in Bldg. 4 this month.

It is now located in the same area as labor relations, wage and salary, and safety offices on the east side of the south end of Bldg. 4 at Plant 2. Its former location is occupied by Plant 2 timekeeping.



GREETING—New AF officers arriving at Convair SD for year in training with industry are welcomed by H. W. Rubottom, chief of educational services, and R. H. Nall, supervisor. From left are Maj. Jack H. Thacker, Nall, Capt. Henry H. Conner Jr., and Rubottom.

Year of 'Training in Industry' With Convair SD Begins for Two

Two Air Force officers reported to Convair San Diego this month to begin their year under the continuing Convair-AF training with industry program.

Maj. Jack H. Thacker and Capt. Henry H. Conner Jr. are well into their first month of the schedule which will take them into every SD department.

Coordinated by SD educational services, the Convair SD program is pointed to industrial planning and procurement operations on an executive level. This year the two officers will observe all San Diego functions; spend five weeks at Astronautics plant; one each at Convair FW, Pomona, Palmdale facility, and General Office; and a week at Ballistic Missiles Center, Inglewood, Calif.

They were welcomed to their new assignment by Convair SD Manager R. C. Loomis and his staff Sept. 6; went through regular new-hire induction. During the next two weeks they were introduced to all industrial relations sections and presently are observing in D. B. Acker's industrial engineering department.

Major Thacker holds a BS in business administration from University of Akron, Ohio, and MS through the Institute of Technology, Wright-Patterson AFB, where he was number one in his class.

He has been in the Air Force since 1942, with the exception of five years inactive. His service record includes tours of duty as gunnery officer of a B-24 squadron and group; officer-in-charge, Akron Procurement Office; officer-in-charge, B. F. Goodrich Plant office; and, recently, procurement inspector, USAF Inspector General.

Captain Conner comes to Convair from ARDC Hdqtrs. where he was chief, weapon systems branch, Budget Division. His commissioned AF service dates from 1950 with several years in England as chief, central accounts branch, and deputy director of accounting, Hdqtrs. 3rd Air Force.

He holds a BS from University of Pittsburgh and MBA from University of Michigan.

Arrangements for their indoctrination at Convair are coordinated by Mark Saunders Jr., special services administrator for educational services.

Customer Service Training Steps Up For Line Personnel

As Convair SD customer service training for the new Convair 600 jet transport swings into high gear, two courses end for Swissair-SAS and American Airlines with another to start next week.

Second maintenance training course for Swissair-SAS will conclude next week (Oct. 7). Thirty-three flight and maintenance training men, foremen and supervisors from Copenhagen, Oslo, and Zurich have been at the plant for the month-long training. Horst Baer, Swissair manager of training from Zurich, coordinated arrangements with H. P. Schulthess, Swissair-SAS West Coast technical representative, based at Convair SD.

Next Swissair-SAS course will begin Nov. 21 to run through mid-December.

Five electronic instructors from American Airlines headquarters at Tulsa, Okla., and New York City completed a six-week course on electronic systems of the aircraft last week.

A new American Airlines course on overhaul procedures begins next Monday (Oct. 3) for 24 key personnel coming to SD from points throughout the network.

Highlight for the Swissair-SAS men, during their stay in San Diego, was an introduction to shades of the Wild West at the San Diego Sheriff's Rodeo. Convair Recreation Association furnished them with discount tickets to the Rodeo, as well as Marineland and Disneyland, to give them a glimpse of publicized attractions in Southern California.

Darkness Is Just Question of Degree

"This is a dark picture," Conrad Kunze, SD assistant manager-operations, was saying as Bill Dickenson, Dept. 192 assistant foreman, squeezed into the conference room.

"And this program is getting darker and darker," Kunze continued, looking pointedly around the room. Dickenson, trying not to call attention to himself, had elected to stand. At this point he leaned back against the wall and his shoulder triggered the light switch. The lights went off.

"It's even darker than I'd thought . . ." said Kunze.

★ Convairiety ★

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Approximate current total circulation, over 65,000. News items and letters to the editor are solicited, but no advertising can be accepted.

SD Editorial Offices, Building 32, Plant 1, ext. 1071. Staff: Grayce Fath, Helen Pemberton, Fred Bettinger.

Astronautics Editorial Offices. Bldg. 8, Astro site, ext. 3322. Staff: Bryan Weickersheimmer, news editor; Willard Harwood.

FW Editorial Offices, Col. 73C, ext. 2961. Mailing address: Convairiety, Convair, Fort Worth, Texas. Telephone PErshing 8-7311. Staff: Dave Lewis, news editor; Mary Beck.

Pomona Editorial Offices, Room 106-D, Bldg. 1, ext. 6226/5279, mail zone 3-3. Staff: James Combs Jr., news editor; Dorothy Keller.

Palmdale news representative, CRA office, Room 36, Bldg. 301B, ext. 331, Palmdale facility. Holloman: O. J. Ancel, industrial relations, ext. 20, Holloman AFB.

SD Instructors Off to Formosa For CAT Training

(Continued from Page 1)

Waynesboro, Va., and to Delta Air Lines headquarters, Atlanta, Ga., for other first-hand information on the 880.

Training materials, including manuals, charts, training aids of all kinds, will be waiting when Convair instructors arrive at Taipei. Thirty-five crates were shipped ahead to be there in time for the program.

CAT planes connect Formosa with Japan, Okinawa, Thailand, Philippines, and Hong Kong. The 880-M due for delivery next spring will be the line's first jet.

In addition to their Formosa assignment, Convair SD men will be making contact with other Convair customers in the Pacific. This week Smith was in Honolulu on a service visit to Hawaiian Airlines which flies Convair-Liners on their inter-island hops.

En route home from Formosa, all four SD representatives will visit Japan Air Lines' headquarters at Tokyo to lend technical assistance in any way they are able.

$85,000 Cleaning Unit Installed

New equipment for thorough cleaning of honeycomb panels going into Convair jet transports is being installed at Convair San Diego.

Going into the large enclosed dust-free area at the south end of Bldg. 3, Plant 1, is a process cleaning system designed and manufactured for Convair by Turnkey Engineering Co., Los Angeles.

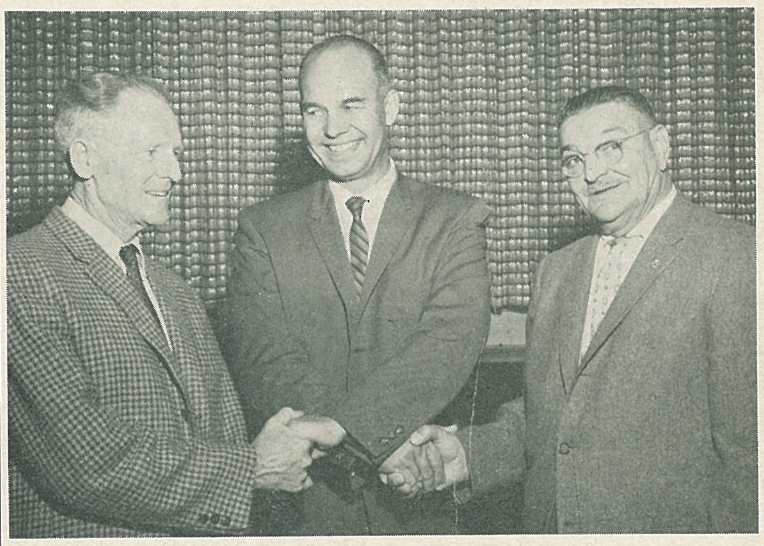
Entire system, including tanks, drying oven, paint spray booth, cost approximately $85,000 with SD plant engineering responsible for preliminary design specifications and supervision of installation.

The equipment is designed especially for cleaning of stainless steel sheets and honeycomb panels for Convair 600 and 880-M jet transports. All such materials must be surgically clean to bond properly.

Parts are processed through three tanks — one acid, one clear rinse, and the third, a demineralized rinse — before going to the dry-off oven and on to the layup area adjacent. If parts are to be painted, they go to the spray booth during the process. Hundreds of thousands of gallons of water will be conserved each year by a recirculating pump action through the demineralized rinse tank.

The new system is slated to go into operation around the first of the month, said H. A. Smith, chief of plant engineering.

In charge of honeycomb processing is M. F. Link of Dept. 119.



LONG SERVICE—Fifty-five Convair years were recognized early this month when R. C. Loomis, Convair vice president and SD manager, presented L. C. McEntee, Dept. 25-1, left, with a 25-year service emblem, and J. A. Bearss, Dept. 400-6, right, with a 30-year emblem.

Youth Groups, Health, Welfare Agencies Get Con-Trib's Help

Convair SD Employees' Con-Trib-Club contributed $46,600 to 19 youth groups and 17 health and welfare agencies in the San Diego area this month.

Distribution of unallocated funds now on hand and anticipated to the end of the fiscal year was made at the September meeting. In addition, International Guiding Eyes, Inc., received $300 on recommendation of Antelope Valley advisory committee.

San Diego youth groups benefiting are: Alpine Youth, $500; Boys' Clubs — Carlsbad, $500; Oceanside, $500; Chula Vista, Clairemont, El Cajon, Escondido, Linda Vista, National City, San Diego, $750 each; Boy Scouts, $3,500; Camp Fire Girls, $2,000; Encinitas Youth, $500; Girls' Clubs — San Diego, $1,500; National City, $750; Girl Scouts, $3,500; YMCA (SD city and county), $2,500; YWCA, San Diego, $500; YWCA, Fletcher Hills, $500.

Amounts going to other agencies are: Cerebral Palsy, $2,000; Children's Dental Health, $1,500; Children's Home, $1,000; City of Hope, $500; County General Hospital, Vauclain Home, $1,000; Crossroads Foundation, $250; Cystic Fibrosis, $1,000; Donald N. Sharp Memorial Community Hospital, $7,000; San Dieguito Family Service, $500; Foothills Family Service, $1,000.

Multiple Sclerosis, $1,000; Neighborhood House, $1,000; Retarded Children, $2,500; Rancho Los Amigos, $1,500; Salvation Army, $1,350; Sunnyside Guild, $1,000; Traveler's Aid, $500.

Nuclear Submarine Cruise Described At Chapter Meeting

Convair SD electronic engineers, members of Armed Forces Communications and Electronics Association, SD chapter, heard Dr. W. K. Lyon and Arthur Roshon describe their experiences aboard the nuclear submarine Seadragon on its voyage under the polar ice cap this summer.

The two NEL scientists spoke at the group's opening fall meeting at Town and Country Hotel last week (Sept. 21).

Next meeting of AFCEA, devoted to promoting closer cooperation between industry and the military in fields of communications, electronics, and photography, will be the last of November.

Convair SD men holding posts in the organization are R. E. Honer, SD manager of electronics, executive director; W. R. Rauth, chief of electronics marketing, vice president; and P. L. Vasques, electronic market analyst, secretary. For information call Vasques, ext. 1391, Plant 1.

Three Engineers Elected by SAE

Convair men taking office with the Society of Automotive Engineers, Inc., San Diego section, include F. H. Sharp, SD senior project engineer, national director, and F. D. Applegate of Model 22 project office, as area coordinator.

H. W. Callihan, SD propulsion design senior group engineer, is secretary of the SD section.

Committee chairmen from Convair are D. D. Britt, Astro engineer, arrangements; J. L. Phipps, SD senior design engineer, membership; P. B. Stephens, SD propulsion research and development, publicity; Sharp, national delegate.

Over 20 Convair members toured the Navy Electronics Laboratory and heard Lt. L. A. Shumaker, USN, review dives made with NEL's "Trieste" at the group's first fall meeting last week.



ROOF COMING UP—Mrs. Martha Williams of Convair Holloman facility hands over $1,000 check from Con-Trib-Club to Walter Mullins for new roof on Youth Center under construction at Alamogordo, N.M. Gift raises total of Con-Trib contributions to Central Youth Activities Committee to $3,500. From left (front row) are C. C. Chase Jr., Mrs. Williams, Mullins, J. T. Frederick; (back row) Tom Torian, Frank Carr Jr., Mrs. Ruth L. Berg, O. J. Ancel, C. C. Reitzel, Lou Padilla.

SD Men to Speak At MM Institute

Two Convair San Diego men are on the roster of speakers for the fifth annual Middle Management Institute which will be held Friday and Saturday for five alternate weekends beginning Oct. 21 and ending Dec. 17.

They are Millard S. Lachman, educational services supervisor, and Dr. Neil W. Lamb, project administrator. Purpose of institute is to provide advanced education in management and leadership principles for managers and supervisors from business, governmental and industrial organizations in the San Diego area.

Sessions will be held in the Valley Room of the Mission Valley Inn. A $135 fee includes tuition, materials and meals.



TRIUMPHANT TRIO—This spectacular photo of three Convair-built planes, B-58 bomber, 880 jetliner, and F-106 interceptor, each fastest craft in its class, will be featured during next two months in national news and trade magazines. Color "center-spread" advertisements will appear in Oct. 24 issue of U. S. News and World Report and Oct. 21 issue of Newsweek. In November it will appear in Aviation Week, Aerospace Engineering and Space Aeronautics. Each of four language editions of Interavia will carry advertisement. So also will 15 other foreign language aviation trade papers in 15 different European countries.

'National Security Economics' Course Offered Key Executives

Convair executives in all operating divisions are again invited to apply for a graduate level correspondence course on "The Economics of National Security," offered by the Industrial College of the Armed Forces.

Qualified civilians who are accepted for the course receive a concentrated indoctrination in interrelated military, logistical, administrative, scientific, technological, political, and social factors affecting national security.

Based on the 10-month resident course conducted by the college at Fort Lesley J. McNair, Washington, D. C., the correspondence course is designed to enhance preparation of senior military officers and civilian executives for important command, staff, and policy-making positions in the national and international security structure.

The text material is presented in 22 bound volumes organized into five units of study: Background Information, Resources and Facilities, Processes in the Economics of National Security, Foreign Aspects of National Security, and Problems of National Security.

There is no charge for the course and all texts and instructional material are furnished without cost to students. It generally takes about one year to complete all units. Civilians who successfully complete the course receive a certificate of completion. Reserve officers not on extended active duty are granted 48 credit points.

Since the course was inaugurated in 1950, more than 9,100 persons have completed it. Today more than 3,000 correspondence students are participating.

Convair men currently enrolled include 15 at San Diego, and at least two at Convair Fort Worth. Convair SD engineering executive and management personnel taking the course are W. D. Wood, R. E. Strayer, M. Dublin, C. S. Brandt, W. H. Roberts Jr., E. C. Oertel, E. W. Carlson, K. G. Blair, F. D. Applegate, W. H. Mollering, E. F. Strong, W. R. Monroe, H. J. Richardson, G. E. Putness, and C. E. Chapman.

At Fort Worth, Elliott Butler and H. C. Graham, both of Dept. 28-7, are now taking the course while M. J. Scott of suggestions section has completed it.

Those interested in applying are urged to write the Commandant, Industrial College of the Armed Forces, Fort Lesley J. McNair, Washington 25, D. C., Attn: Correspondence Branch.

At Convair SD information may be obtained from D. G. Walton, educational services, ext. 1671, Plant 1.

Industrial Engineers Honor Acker, Davant

Several Convair officials were honored last night (Sept. 27) when San Diego Chapter, American Institute of Industrial Engineers, met at the San Diego Athletic Club.

D. B. Acker of Convair SD and J. K. Davant of Astronautics, both members of the group's board of governors, were honored for previous service.

Dr. Richard McGuire (Convair SD) is the local president. Astro officers include T. R. McColloch, board of directors, G. W. Hedling, second vice president, and Tod Carter, past president and board of directors.

Date Machine 'Fixed' By Amateur Mechs

When two self-styled mechanics at Convair SD Rose Canyon set about fixing a temperamental department dating machine they achieved surprising results.

After John Grimes, buying supervisor, and Bruce McClendon, senior buyer, had completely torn the machine down and put it together again it worked fine—but printed backwards! Following due deliberation a second assembly proved successful.

Test Pilots Run Annual Symposium Next Month in LA

Third annual symposium of The Society of Experimental Test Pilots Oct. 6-7-8 at the Ambassador Hotel in Los Angeles will deal with various aspects of "The Age of Omni-Sonic Flight."

Papers will be presented by representatives of contractor firms, military services, FAA.

Discussion subject the morning of Oct. 6 will be "Crew and Passenger Environment in the Omni-Sonic Age." Afternoon topic will be "Crew Selection and Training in the Omni-Sonic Age."

Morning and afternoon sessions on Oct. 7 will be devoted to "Facilities of the Omni-Sonic Age" and "Space Vehicles of the Omni-Sonic Age," respectively. The last day will spotlight "The Atmospheric Vehicles of the Omni-Sonic Age."

Convair's John M. Fitzpatrick, chief engineering test pilot at Holloman AFB, is chairman of the first Thursday meeting. D. A. Liebel, SD mechanisms group engineer, will discuss "The Ejection Seat Is Not Yet Obsolete."

Filming 'Three Fastest' Planes a Minor Miracle In Timing and Weather

Of the many thousands of photos which have been taken over the years of Convair aircraft, it is a safe bet that one which is being released this week of the "three fastest planes in the world" required the most preliminary effort.

Actual camera time lasted only 20 minutes, but "arrangements" spanned a four-month period.

First of all, the planes could be spared for a photo meeting only at the conclusion of a test flight. This meant trying to schedule flights for the three planes so that they would conclude their tests at the same time and end up on the same "location."

For the first scheduled "take," the stars were a B-58 and an 880 undergoing test at Edwards AFB and an F-106 from the production test facility at Palmdale. This mission seemed to have a good chance of succeeding until the B-58 flight was cancelled at the last minute.

Weather washed out the next two sessions. Then the photo plane was withdrawn because of other requirements. After some discussion, it was decided to use an F-106B, the two-place version of the all-weather interceptor. But this added still another dimension to the problem as its use also depended on test flight status.

After two more photo failures, it became apparent that the B-58 schedule would have to be changed. Arrangements were made with the Air Force at Carswell AFB, Texas, to tie in with the effort if they had a B-58 on flight over Southern California.

This meant more frequent B-58 flights to coordinate and multiplied problems of time differences, distances and weather changes.

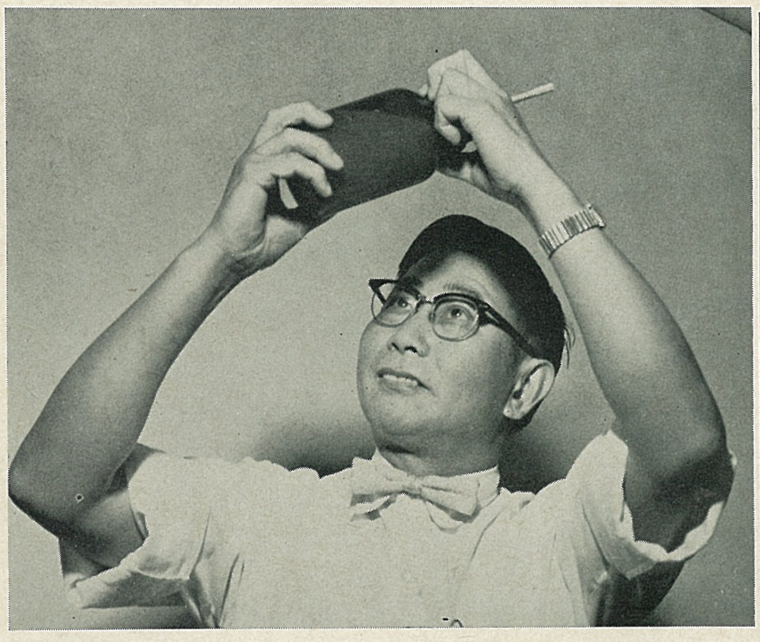
Next followed a three-week delay, this time caused by the 880, which was spending every minute of flying time aiming at certification by the Federal Aviation Agency.

Finally, at 1 p.m. on May 27, all efforts jelled. Arriving at the rendezvous point (at 25,000 feet over Boron, Calif., in Mojave Desert) were the B-58 from Fort Worth, the 880 from San Diego, and the F-106 and F-106B from Palmdale.

Convair SD photographer Dan H. Otto shot the speedy trio in three formations, taking 24 black and white shots and 18 color. Shutter speed was F11 at 4/100s second. Pictures shot upward showed a clear blue sky in background. Those shot from above showed haze and a trace of clouds.

An Air Force pilot flew the B-58. The F-106A, F-106B and 880 were flown by Convair production test pilots.

Assisting in the successful "shoot" were Convair's R. E. Myrann, chief pilot—Palmdale, and H. L. Burt, Palmdale production flight, who coordinated arrangements for the F-106 and chase plane; V. L. Allwardt, SD senior flight test group engineer, 880 coordinator; and A. S. "Doc" Witchell Jr., Convair base manager at Carswell AFB, B-58 coordinator.



DOING TRICKS—Dr. Ta Li of Astronautics has taken lead in research on behavior of various liquids in "weightlessness" of space.

Liquids Behave in Odd Manners At Zero-G, Mercury Planners Say

What happens to liquids in space is a matter of concern to Project Mercury planners at Astronautics.

Dr. Ta Li, a member of Astro's space physics group (Dept. 592-3), part of a newly-formed applied research section headed by Dr. V. A. Babits, reports that liquids in the absence of gravity react in strangely different manners.

So-called "energetic" liquids, which include water, beverages and some fuels, crowd to the sides of their containers, leaving a bubble in the center. Others, such as mercury, at zero-G (weightlessness) detach themselves and form a sphere or column in the center of the confining space.

In practice, this means that space ships using certain fuels will require upright pillars in their fuel tanks to which the fuel can cling, reserving the top of the tank for a vapor bubble, where it forms naturally on earth.

An astronaut had better keep his thermos bottle firmly corked, Dr. Li warned, else the liquid creep out and cover the outside of the bottle! And the common fever thermometer will be useless in space, for the mercury will detach itself from the wall of the graduated column!

Dr. Li's zero-G theories have been applied to Centaur vehicle development as well as planning for Project Mercury which is expected to place a man in space. His research has been confirmed experimentally at Stanford University by NASA, and in a number of Astro studies conducted with a specially instrumented C-131B (**Convairiety**, March 16, 1960) which produces periods of weightlessness by means of dives and sharp pull-ups. Astro's studies have been coordinated by Hans Steinle, thermodynamics engineer.

Dr. Li was educated in his native China and later studied at Munich, Germany. He returned to China to teach but his books were destroyed during the war.

"Without books I could not work," he explains. "So in 1947 I came to the United States."

He taught at various universities before entering the aircraft industry in 1953. He has been with Convair five years.

SD Artist's Work Featured in Show

Twenty paintings and drawings of Convair SD artist Don Srull, chief of operations analysis, were featured last month in a one-man show at the La Jolla Art Center.

It was the first one-man exhibit for Srull who started painting for pleasure only five years ago.

Plan For Rapid Transit Car, Built Like Airplane, Shown by Convair

Convair San Diego last week disclosed its proposed design for a rapid transit car of airplane-type construction, with twice the speed of a conventional interurban car or subway train.

The design, developed to meet requirements of San Francisco Bay Area Rapid Transit District, was described by F. L. Tripp, Convair SD engineer project leader, in a presentation to the Advisory Committee on Rail Cars during the American Transit Association convention at Chicago, Ill.

Applying the type of construction developed by Convair for its B-58 supersonic bomber, now in production at Fort Worth, the 70-passenger car would be built of aluminum sandwich panels. It would weigh 43,200 pounds fully loaded, half the weight of competing cars.

With the car's light-weight construction, novel seating arrangement, and use of multiple side doors for fast loading, it could maintain an average speed, including stops, of 53 mph. Maximum speed would be 80 mph.

Electrically-powered, the car, operating singly or in trains, is designed to run on conventional rails under automatic control. Station stops, planned on an average of every 2.42 miles, would require no more than 20 seconds. The rapid transit car would be able to accelerate and decelerate at 3 miles per hour per second.

Fully automatic controls would allow trains to be operated with 90-second headway. A motorman would man each train to override the automatic system if necessary.

Although planned to meet specifications of the San Francisco district, the design could be adapted to needs of any metropolitan area.

Division Called on For Greater Effort

(Continued from Page 1)

cooperation, reverse the trend and once again operate profitably and lead the other Divisions in efficiency.

"We cannot obtain new contracts unless we bring about a substantial reduction in costs throughout the division. This is so simply because our present costs are not competitive. We are aggressively seeking new contracts but our efforts will come to nothing unless they are implemented with your cost reduction accomplishments. In other words, your success in this field is the only thing that can assure a good level of employment in this operating division by again making us competitive.

"I urge you at this critical time to employ all the ingenuity possible to overcome our cost problems."

R. C. Loomis

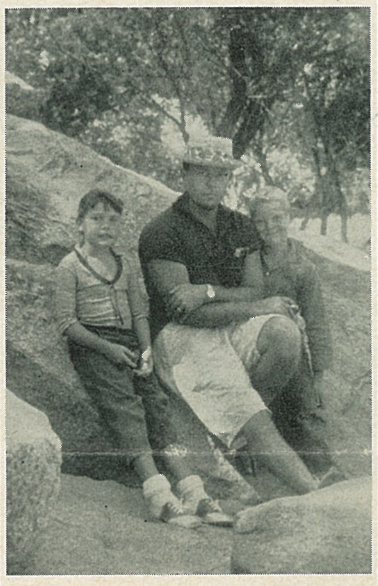
Convair Family Aids in Rescue Of Fallen Hiker

By being on the spot at the crucial moment, Don E. Smith of Astro Dept. 343-1 and his family figured in the rescue from drowning of a young UCLA student at Yosemite National Park last month.

What started out as a pleasant day of hiking to the 10,000-ft. mark at Nevada Falls turned out to be a long-remembered anxious day and evening for Smith, his wife and two children, as they and other picnickers labored to save the life of Carl Horton, 17.

The Smiths were first on the scene in answer to cries for help from young companions of the victim after he was swept over a 40-ft. falls above the main Nevada Falls.

Lowering himself down the precipitous bank with the aid of two other men and his wife who anchored a rope around a nearby tree, Smith was able to reach the body of the unconscious boy lodged against boulders in waist-deep rapids. By tying the badly-cut and bruised boy into a life ring with belts requisitioned from all the men, he was able to secure Carl so that he could be hoisted up the steep slope to



ON THE TRAIL—Don E. Smith of Astro Dept. 343-1 with children, Teresa, 7, and Ronnie, 8, snapped by wife, Kathleen, as they pause on path to Nevada Falls, Yosemite Park, unaware of harrowing experience awaiting them.

solid ground. One anxious moment came, Smith recounted, when the rope gave way in the first attempt to pull him and the boy up together.

While waiting for help from rangers, rushing a rescue squad and litter up the mountain—a four-hour hike, the Smiths built a fire, applied first aid, and tried to keep Carl as warm and comfortable as possible. Everyone passing by volunteered clothing to wrap around the shivering boy, then in shock. At least 27 shirts swathed him before aid arrived in the evening, said Smith.

"It was a lucky coincidence that my wife (a teacher in the San Diego public schools) had just completed a first aid course this summer and could direct our efforts coolly and calmly," recalled Smith, an assistant supervisor in Astro manufacturing control located at Plant 2, San Diego.

He said that no one could realize how important knowledge of first aid fundamentals is until he's involved in a life-or-death emergency. "Then, you really start trying frantically to remember everything you ever learned or read to do the right thing."

Miraculously, Carl escaped the near-tragic accident without serious injury. He was released from the Yosemite hospital after two days treatment for deep cuts around his face, head, and hip, and extensive bruises.

Smith disclaims any credit for his family's part in the rescue, saying "We did no more than anyone else would have done in the same position."



LOTS OF HEART—These 11 Convair SD engineers in past six months have spent 1,700 spare-time manhours improving design of mechanical heart pump, prototype of which was made at Convair SD in 1958. From left (sitting): Emmett Fowler, R. S. Oberst, J. W. Ball, J. G. Helleis, J. J. Motes, H. W. Wright. From left (standing): T. C. Prebys, R. G. Latimer, R. M. Overdeer, J. J. Driscoll and Pedro DeCardi.

Joint Effort

Dozen Convair SD Engineers Aid Heart Pump Development

Dramatic design improvements in a mechanical heart pump used in heart surgery are expected soon—thanks to the volunteer talents of 11 Convair SD engineers who devoted more than 1,700 spare-time manhours to the task.

Manufacture of the new heart pump machine, which primarily incorporates greater features of safety and reliability over the existing model, is now in process.

Convair SD Con-Trib-Club this month approved a $7,000 expenditure to cover the cost. Hewitt and Faust Mfg. Co. of El Cajon, Calif., submitted the lowest bid for manufacture of the machine. They have also volunteered to donate their profit.

The design changes will improve the capability of the prototype heart-lung machine designed at Convair SD in 1958, at that time considered the most advanced in the country. It is credited with introducing major heart surgery in Southern California and last week was used for the 43rd time in a San Diego hospital.

Of particular note is its low degree of hemolysis (blood damage) as confirmed by tests taken by Cutter Laboratories before, during and after a heart operation. This universal type blood recovery system from patient's chest and heart was developed by Convair SD engineer Howie Wright.

"At first we thought we could come up with the design improvements for the new machine in about two weeks," Emmett Fowler (Dept. 6), who coordinated the project, said. "But this was slightly optimistic as evidenced by more than six months of Saturday morning and Thursday night work," he added.

Thirty-two detail prints were produced by the SD engineers.

The new machine will have added safety features, be simpler to assemble, faster to set up, mechanically more reliable and move blood even more gently.

Each of two electric motors, with Graham varied-drive transmissions, will drive two pumping units. If one fails, the other will increase to double speed. In case of power failure, hand cranks can be used.

A new silastic diaphragm will be easier to install and cheaper to replace. Because of greater control over speed of shafts a more accurate regulation of blood flow will be possible. Simplified component sterilization will enable doctors to use the machine twice in the same day.

Due date for completion of the machine is about two months away.

Volunteer Convair SD engineers on the project were Wright, Fowler, Jim Ball, Pedro DeCardi, John Driscoll, John Helleis, Dick Latimer, John Motes, Stan Oberst, Bob Overdeer, Ted Prebys.

Playing major roles in development of the prototype during and after 1958 were Larry Kamm (now at Astro), Bill Childs and Eddie Leak (both Dept. 7). Instrumental in its manufacture were Al Oberg (Dept. 31), L. F. Kruse (Dept. 7) and Del Meredith (Dept. 192).

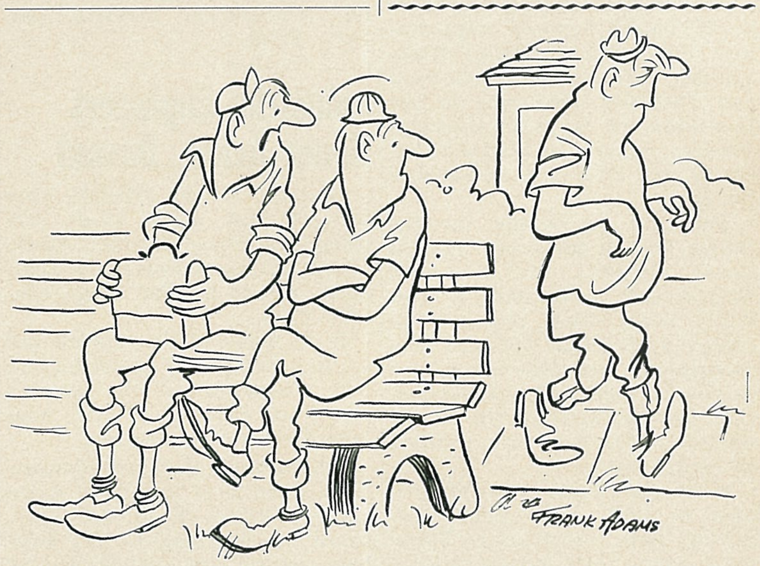
Another heart surgery "assist" is attributed to Convair SD engineer, Hal Rosenbaum, who designed a small stainless steel tube and unicel polyethelene plug which can be used to feed coronary artery when main aorta and heart are cut open. Available through W. R. Homes of the standards lab is a techtronic scope used by doctors to find nerves (bundle of His) in heart.

Tour Plan Adapted To Britisher Taste

Never let it be said that Convair Astronautics' arrangements section of communication department isn't "hep."

Visitors of all ranks visit Astro each year and each group takes part in a "coffee break" as part of their orientation.

Last week a party of British journalists called. They were promptly treated to a "tea break."



"He's my cousin, twice removed . . . once for not havin' enough experience and once for just goofin' off on th' job."

NEWS FROM OTHER DYNAMICS DIVISIONS

General Dynamics Corporation, created in April, 1952, as successor to Electric Boat Company, is composed of seven divisions and a Canadian subsidiary, Canadair Limited, of Montreal, airframe builders. The divisions are:

Convair, head offices at San Diego, Calif., aircraft, missiles, and space systems.

Electric Boat of Groton, Conn., submarines.

Stromberg-Carlson, of Rochester, N. Y., telecommunications, electronic equipment.

Liquid Carbonic of Chicago, Ill., carbon dioxide producer, industrial and medical gases.

General Atomic of San Diego, Calif., nuclear research, development, production.

Electro Dynamic of Bayonne, N. J., electric motors, generators.

Material Service Division, Chicago, Ill., building materials, concrete products and coal.

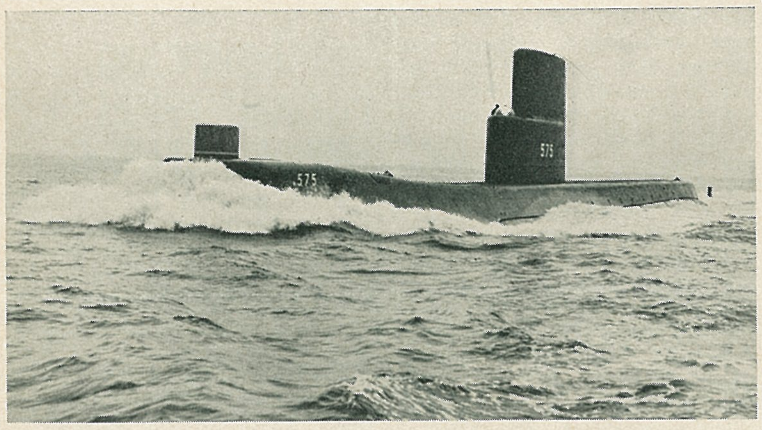
Ebel Moves From Canadair Ltd. As Staff Dynamics Executive

WASHINGTON — William K. Ebel, vice president, engineering of Canadair Limited for the last 11 years, has been named staff executive to the senior vice president for engineering of General Dynamics Corporation. Ebel will assist in coordination of engineering activities among all General Dynamics divisions and its Canadian subsidiary, according to Lawrence B. Richardson, senior vice president, engineering.

Edward H. Higgins, chief engineer of Canadair for the last two years and associated with General Dynamics' Canadian aircraft subsidiary since 1947, was named to replace Ebel.

Ebel's 37-year career in aviation began with service as a flying cadet in the United States Army Air Corps in 1923. He is a graduate of Heidelberg College at Tiffin, Ohio, and the Case Institute of Technology at Cleveland.

His flying career has spanned more than 50 types of aircraft. While chief experimental test pilot for the Glenn L. Martin Company, Ebel also served as chief engineer from 1938 to 1941 and as vice president of engineering for the next seven years. In 1948, he became director of engineering in the Airplane Division of Curtiss-Wright Corporation. A year later he moved to Canadair.



READY AGAIN—Seawolf is shown during builder's trials, returning to Electric Boat docks. Second of Navy's A-subs, Seawolf was taken out of service in 1959 and equipped with pressurized water reactor in place of liquid sodium-cooled reactor.

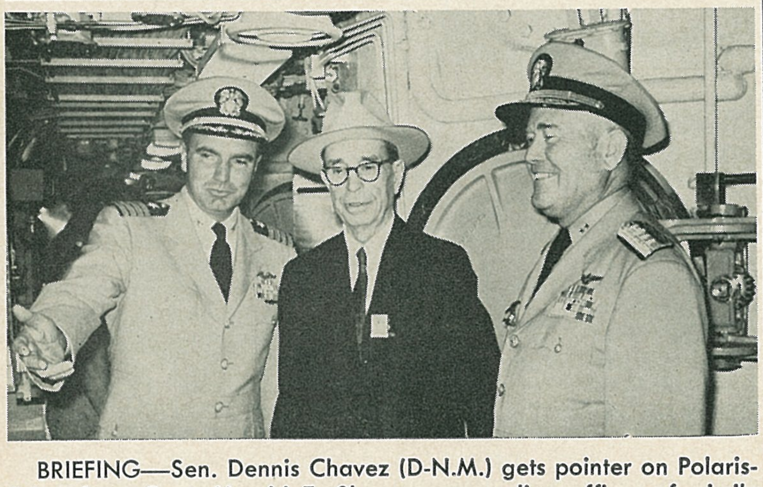
Stromberg-Carlson Builds Fast Data System to Link Pomona, SD

ROCHESTER — A high-speed data communication system capable of keeping pace with the flow of vast amounts of data used with an electronic computer has been placed in operation by Convair to link facilities in Pomona and San Diego, Calif.

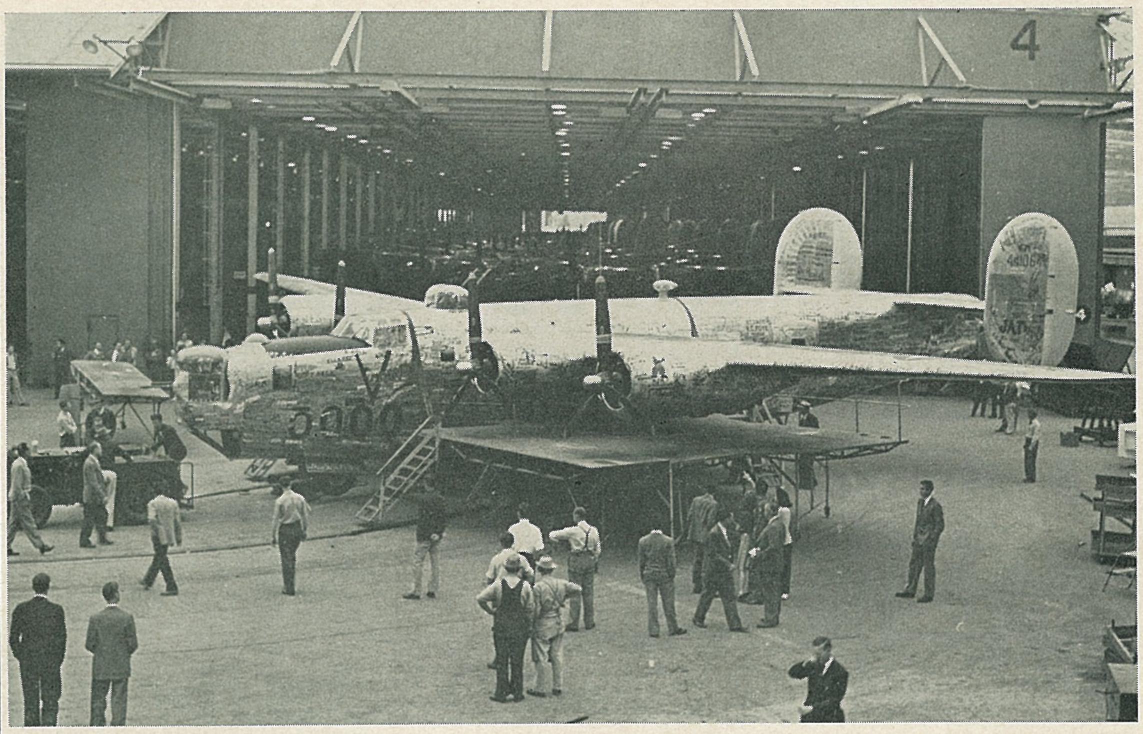
Designed and built as a new product of Stromberg-Carlson, the system transmits scientific data at a rate of 2,400 bits per second—more than 30 times the speed of a conventional teletypewriter — over a regular leased telephone line more than 200 miles long.

Convair uses the new communication system to transmit data from Pomona to its computer facilities at San Diego for processing. Punched cards containing the input data are fed into a high-speed card reader at Pomona. The transmission logic in the system takes the data from the card reader, converting it to a serial train of binary pulses. Check bits are added, and the data is modulated for reliable transmission on telephone facilities. At the receiving end in San Diego data is demodulated, checked, and recorded on a magnetic tape recorder which makes data available in proper format for immediate entry into computer facilities.

Actual operating experience indicates an error rate of less than one error in one million bits transmitted, and even these errors are detected by the system logic before entry of data into the computer.



BRIEFING—Sen. Dennis Chavez (D-N.M.) gets pointer on Polaris-firing from Capt. Harold E. Shear, commanding officer of missile sub USS Patrick Henry. At right is Rear Adm. William F. Raborn, head of Navy's Special Project Office.



OLD FIVE GRAND—Five thousandth B-24 built was rolled off assembly line in June of 1944 at San Diego. Airplane carried hundreds of signatures of Convair people who built ship.

Wartime Air Cargo-Passenger Line Carried Over 101 Million Ton-Miles

(Following is installment No. 44 in Convairiety's continuing history of Convair which saw it emerge from World War II era as one of the largest-producing aircraft companies in the country.)

At the time of the attack on Pearl Harbor the country's entire inventory of four-engined transport planes totaled 27 aircraft. These ranged from eight Boeing Clipper flying boats in the service of Pan American Airways to 11 converted B-24s used by the Air Corps Ferrying Command. The problem of overseas air transportation was crucial for months.

In April, 1942, Gen. H. H. Arnold decided to open a regular service between the mainland and the Southwest Pacific with two repossessed LB-30s, British designation for the Consolidated Liberator. The Ferrying Command selected Consolidated Aircraft as the logical operating agency.

The San Diego company had a pool of transpacific pilots, built up when 14 crews were trained to deliver PBYs to the Netherlands East Indies in the summer of 1941.

Richard A. McMakin, head of the company's flight and service department, was picked to direct what became the Consairway Division. He conducted a 14,600-mile pioneering survey of the California - Australia route between April 2 and 8, 1942. (For the survey flight, McMakin was awarded the Air Medal posthumously. He was killed in an XB-32 crash at San Diego on May 10, 1943.)

First regular flight took off from San Diego April 23 with a ton of radio and plane parts, and mail. The transport returned 11 days later with a passenger list that included 22 Ferrying Command pilots.

Later, headquarters of the transpacific line was established at Hamilton Field in north central California. Some 1,500 persons were transported from San Diego to Fairfield to set up the new division. Four planes were added to the service in June, and the airway achieved heroic results in the face of hazardous and primitive conditions. One early rush job was airlifting a 500-man pursuit group to Australia. Priority cargo ranged from aircraft parts to four 2,000-pound torpedoes.

In August, Consairway began carrying United Air Line captains as crew members to familiarize them with the route. United opened a second contract service over the airway in September. Consairway's first full-fledged overseas base was built in October at Amberly Field, Australia, by the Air Service Command. The basic route touched at Hawaii, Christmas and Canton Islands, Fiji, and New Caledonia. With progress of the war, a new western terminus was established on northwestern New Guinea.

By 1945 the line had 17 Liberator transports in service. During May they averaged 15 hours, 11 minutes of flying time daily. Seven transports had more than 10,000 hours of flight.

The line's record round trip was California to Australia and return in 3 days, 17 hours. For a one-trip cargo-carrying record, Consairway pointed to Liberator No. 568, which lifted a payload of 10,317 pounds from Fairfield to Hawaii on April 20, 1945, and continued southwestward with loads of more than 10,000 pounds on each of its next three stops. When the airline closed Dec. 15, 1945, Manager Robert S. Mitchell reported it had carried more than 101 million ton-miles of cargo, and had flown more than 299 million passenger miles.

(First reunion of Consairway men was held this summer, June 4-5, at Mile Hi Outpost near Valyermo, Calif. Around 100 men and their families gathered to spend a full weekend recalling experiences of 18 years ago. Three of the Consairway veterans, still with Convair—W. R. Kemper, Frank Korczykowski, both of Convair San Diego Plant 2, and C. D. Wirt of Astro Dept. 575-2, based at Missile Static Test Site—were instrumental in getting the word out in Convair plants. Some 175 Consolidated flight crewmen, mechanics and ground crewmen, many still with Convair, were connected with the airlift. **Convairiety**, May 25, 1960.)

* * *

Convair out-produced all other aviation manufacturers in 1943 as judged by either of the production yardsticks, airplanes delivered or poundage, including spare parts. The leaders that year in each category were: Total planes — Convair, 10,496; North American, 9,106; Curtiss, 6,611. Weight, millions of lbs.—Convair, 128.7; Douglas, 118.1; Boeing, 73.9.

Over the five-year period, 1941-45, the airframe industry produced 2.85 billion pounds of planes and spare parts. Convair held second place among the five leaders: Douglas, 435.5 million lbs.; Convair, 372.6; Boeing, 344.7; North American, 292.8; Lockheed, 246.8.

During the same five-year period the industry delivered 296,252 finished planes with Convair holding second place with a total of 30,687 aircraft produced. North American topped the list with 40,644.

No breakdown of the dollar value of wartime contracts within the airframe industry has been found. However, the following compilation shows how the defense dollar was divided, in percentage of total, among top industrial contractors of all types in World War II: General Motors, 7.9; Curtiss-Wright, 4.1; Ford Motor Co., 3.0; Convair, 2.8; Douglas Aircraft, 2.5; United Aircraft, 2.2.

Thus, the end of the war found Consolidated Vultee in strong position among the leaders of what had become, since 1938, a strong industry indeed. But ahead lay reconversion.

Writer Working On Second Book

A Convair San Diego engineering writer is at work on his second book to be published in the last two years.

Duell, Sloan and Pearce, New York publishers, have commissioned Ralph De Sola of Dept. 6 advanced project group to expand and revise the reference volume, "International Conversion Tables," scheduled for release early next year. Two years ago De Sola's "Abbreviations Dictionary," containing nearly 14,000 entries, short forms, and space-age acronyms, was brought out by the same publishing house.

The new reference book will be the first compilation of its kind to appear in 30 years with up-to-date conversion tables of weights, measures, gauges, currencies, technical units, alphabets, and other useful information, all in one binding.

De Sola's name is listed in the 1960 edition of American Men of Science with reference to his specialization in technical writing and editing as well as work in allied fields. This is the second time he has been included in the "who's who" of men active in science. The 1933 edition carried his biography with special reference to his participation in the New York Zoological Society's Galapagos expedition.

He has been at Convair San Diego for over five years.

'Aviation Pathfinders' Organize SD Chapter

Convair pilots with at least 25 years' experience are eligible for membership in the San Diego chapter, now being formed, of Silver Wings Fraternity, national organization for "aviation pathfinders."

According to H. R. Rhynsburger of Convair SD Dept. 15-4, who holds a life membership in the fraternity, there are 60 eligible pilots in the San Diego area. Of these a dozen have been located as a nucleus of the local chapter.

Rhynsburger began his flying career in 1921 when he soloed in an OX-5-powered Jenny and went on to barnstorm throughout the Midwest for several years before going into the aircraft industry.

Long-time pilots are urged to contact him at ext. 2676, Plant 1, SD.

Log Book Entries

Promotions

SAN DIEGO

Promotions to or within supervision effective Sept. 12.

Dept. 6-32, Engineering: To research group engineer, W. E. Woodson.

Dept. 187, Quality Control—Electronics: To inspection supervisor, J. W. Barrett. To inspection asst. supervisor, F. A. Klukas.

Service Emblems

SAN DIEGO

Service emblems due during the period Sept. 16 through Sept. 30.

Twenty-five-year: Dept. 3-3, H. E. Pasek; Dept. 6-04, W. H. Fink; Dept. 25-1, H. J. Pierce; Dept. 31, A. R. Sharp; Dept. 101, John Woodhead.

Twenty-year: Dept. 5, B. E. Cavin; Dept. 6, W. V. Carter, W. J. Darracq, W. O. Johnston, R. R. Parga; Dept. 8-1, E. L. Johnson; Dept. 14-8, T. F. Jones Jr.; Dept. 15-5, O. W. Harper.

Dept. 25, C. W. Carlson, S. J. Hawkins, J. E. Morrow; Dept. 31, G. G. Elo III, B. E. Goss Jr., H. J. Hildebrand, H. J. Liggett, T. N. Moraga, F. D. Wade, John Wasem; Dept. 69-1, A. P. Gonzalez; Dept. 91-0, H. A. Kayes; Dept. 97-1, M. H. Jahn.

Dept. 100, Ivan Webb; Dept. 133, W. F. Hindes; Dept. 136, B. F. King; Dept. 137, J. R. Hernandez; Dept. 145, F. E. Smalley; Dept. 160, F. M. Applegate; Dept. 180, H. S. Dent.

Dept. 233, R. F. Friar; Dept. 266, F. S. Rector; Dept. 400, S. W. Kellogg, C. O. Lee; Dept. 401, G. E. Boltz, H. W. Brightwell, F. L. Chamberlin, Florian Hacker, A. C. Hall, M. P. Rebeles, C. O. Rhea, T. J. Skerritt, C. P. Thomas.

Fifteen-year: Dept. 3-7, M. S. Lachman; Dept. 6-35, Helen M. Tucker; Dept. 31, H. F. Blakely, Chester Czekala; Dept. 34-5, B. J. Early; Dept. 116-0, H. L. Teich.

Dept. 133, J. S. Almond, R. L. Becht; Dept. 180-0, J. B. Holland; Dept. 197-8, R. L. Rayman; Dept. 233-0, Mary W. Peterson; Dept. 288-5, C. E. Shaw; Dept. 400-2, C. P. O'Carroll; Dept. 401-0, M. A. Baird.

Ten-year: Dept. 3, A. J. Smith, G. L. Weaver; Dept. 4-0, W. E. Gleason; Dept. 5, J. D. Smith; Dept. 6, J. F. Dzialowy, Sucher Guthers, J. W. Knebel, J. L. Lothringer, L. F. Mastny, F. D. Miller.

Dept. 7, W. S. Childs, R. T. Coxeter, E. S. Langworthy, N. G. Neault; Dept. 8, Maurice Dunlap, D. L. Johnson; Dept. 11-2, C. B. J. Dutton; Dept. 14, Mary B. Boyington, Edna G. Harris; Dept. 21-3, E. J. Blanco.

Dept. 25-9, J. M. Kirk, V. R. Poulter, Emelia J. Skurla; Dept. 31, E. H. Adams Jr., C. B. Fabares, R. H. Gates; Dept. 34-1, C. C. Mickle Jr.; Dept. 44-3, M. G. Sheckler; Dept. 63-1, R. L. Bauer; Dept. 68-0, Edward Schiff; Dept. 93-2, R. S. Sachs; Dept. 98-7, Emmett Capossere.

Dept. 102, Hayward Humdy; Dept. 115, E. W. Woods; Dept. 116, Shirley M. Estensen; Dept. 120, G. M. Cain, C. N. Charnock; Dept. 135, F. L. Popham; Dept. 137, F. R. Salinas; Dept. 139, Pedro Lidot, R. H. Pickle.

Dept. 142, E. I. Welch; Dept. 146, J. J. Krause; Dept. 148, H. M. Tallant; Dept. 149-0, G. W. Ramsey; Dept. 160, I. E. Bell, N. J. Hernandez, Joseph Schumacher; Dept. 180, Yolanda C. Conti, C. S. Goodman, R. P. Kellhofer, Mary E. W. Richardson.

Dept. 188, E. N. Costello, J. J. Crawford, F. S. Devereux, N. J. Xalis; Dept. 192-5, C. M. Huffman; Dept. 204, J. D. Banks; Dept. 205, R. E. Scott; Dept. 215, D. D. Davidson, M. E. Tecker; Dept. 216, Delfina C. Blanco; Dept. 218, John Privatel.

Dept. 233, R. P. McGhen, Vina L. Miller; Dept. 267, Elda D. Garner; Dept. 280, C. O. Hess; Dept. 288, Marie H. Suter, Christine C. Thomas; Dept. 292, Mabel W. Aten, Lois W. McHugh, E. L. Tate; Dept. 401, L. J. Hack, G. J. Kureri, P. P. Miller, C. S. Ragsdale, W. R. Whitfield, B. A. Winterink.

HOLLOMAN AFB

Fifteen-year: Dept. 313-0, J. Seth Boaz.

Retirements

SAN DIEGO

ERICKSON—Walfred G., Dept. 14-1. Seniority date Sept. 16, 1937, retirement effective Sept. 16, 1960.

WELLS—Emil, Dept. 123-9. Seniority date May 2, 1947, retirement effective Sept. 9, 1960.

WILLIS — Presley L., Dept. 14-4. Seniority date July 11, 1947, retirement effective Sept. 16, 1960.

WISDOM—Milton V. Sr., Dept. 402. Seniority date May 3, 1950, retirement effective Sept. 8, 1960.

Births

SAN DIEGO

MARTINSON—Son, Marshal Boyd, 7 lbs., 8 oz., born Sept. 12 to Mr. and Mrs. G. B. Martinson, Dept. 215.

Deaths

SAN DIEGO

BLANCHARD—Harold T., Dept. 99. (Formerly Dept. 288). Died Sept. 7. Survived by wife, Nellie A.; sons, Roderick H. and Malcolm D. Blanchard; two sisters; four brothers.

YOUTS—Emma K., Dept. 14-9. Died Sept. 11. Survivors include son, Madison F. Youts.

Personals

SAN DIEGO

I wish to thank each and every one of my Convair friends in Dept. 31 for the many get-well cards and telephone calls received while I was in the hospital and since I have been home. I appreciate them all.

J. H. McCoy, Dept. 31.

* * *

We wish to express our heartfelt appreciation to our many friends in Astronautics Dept. 322 and Convair SD Dept. 15 for their kindness and sympathy following the loss of our loved one, Thomas C. Hardy.

Shirley Hardy (Dept. 322-7)
and children, Roger and Judy.

* * *

PALMDALE

I wish to express my sincere appreciation to our Convair friends for the many acts of kindness and flowers at the death of my husband, C. E. Sanders, Dept. 328-1.

Mabel S. Sanders.

Tickets Discounted For Old Globe Play

Discount tickets for the Thursday (Oct. 13) performance of the "Golden Fleecing" at the Old Globe Theater are now on sale at Convair SD employee services outlets.

Regular $2.50 and $2 seats are selling for $1.50 and $1, respectively, for the special Convair SD night. Written by Lorenzo Semple Jr., the play is a farce about Navy men who outwit roulette with shipboard electronics.

Toastmasters Seat Officers This Saturday

Andrew Gormish, Convair SD engineer, will be installed as new president of Convair Toastmasters Club No. 457 at a special dinner meeting this Saturday (Oct. 1) at Marine Corps Officers' Club.

Ladies and guests will be in attendance at the 7:30 p.m. installation. No meeting will be held on the regularly-scheduled night, Oct. 3.

Other officers to be seated are: Don Quinn (SD-Dept. 197), administrative vice president; Duane Johnson (SD-Dept. 6), educational vice president; Fred Stevens (SD-Dept. 7), treasurer; Don O'Neill (Dept. 1-97), secretary; Tom East (SD-Dept. 6), sergeant at arms.

Reservations may be made through Johnson, ext. 2320, Plant 1.

Open to men from any department in either San Diego or Astronautics plants, the club's purpose is to develop effective speaking ability. Regular dinner meetings are held each Monday night, 6 p.m., in Convair SD executive dining room.

Delta Club Gives Progress Program

"Participation Promotes Progress" was theme of last night's Delta Toastmistress Club dessert meeting in Convair SD executive dining room.

Six new members were handed assignments during the meeting. They were Dorothy Bowmer, Helen Fenton, Pat Goforth, Pam Gray, Dolores O'Brien, and Fran Wargo.

Next meeting will be a 7:30 o'clock dinner Oct. 11 in the executive dining room.

Walker Ranks First At SD Pistol Shoot

A score of 289 points tallied by W. G. Walker (Dept. 6) won master class honors at the Sept. 11 Convair SD Pistol Club shoot, Ash Bishop, CRA commissioner, reports.

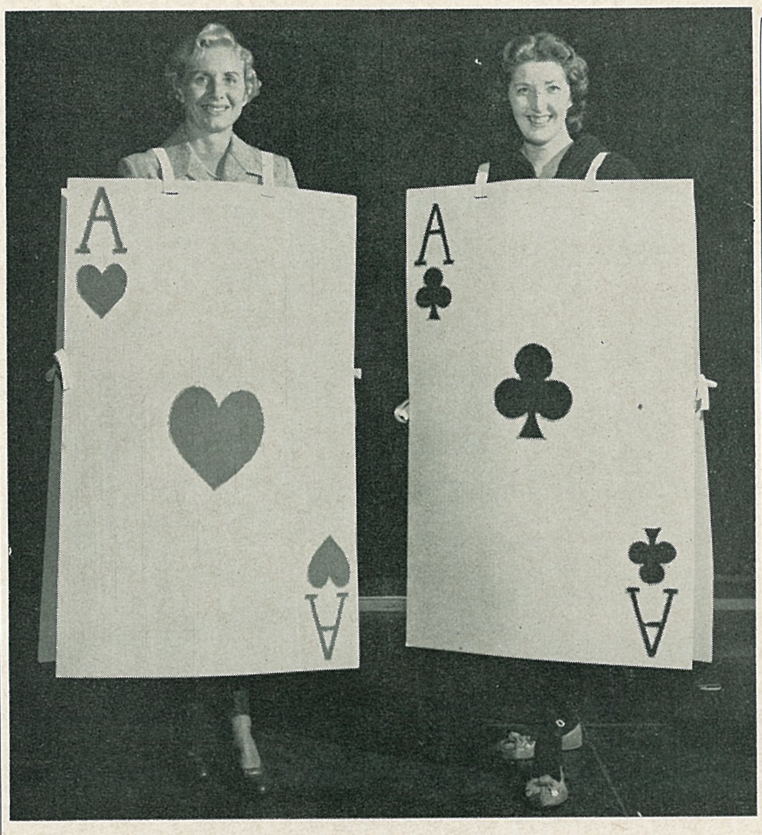
Ranked second in the police course event was Carl Hornburg (Dept. 139) with 284 points. Other class winners and their scores were Ralph Picard (Dept. 7) expert, 279 points; Ash Bishop III (son of A. L. Bishop, Dept. 401-5), sharpshooter, 257; Charles Vanderway (Dept. 6), marksman, 233.

A. B. Carlson (Dept. 68) placed second among the sharpshooters with 253 points. Jim Halfacre (Dept. 180) took short national match honors with a 268 total.

Potluck Planned For Ski Meeting

A potluck-supper meeting is scheduled for members and guests of Convair SD Water Ski Club next Thursday (Oct. 6) at 6:30 p.m. at Convair SD executive dining room.

Attendance at the affair will help determine the frequency of ski outings during the remainder of the month, according to newly-appointed CRA Commissioner Gene Sevigny.



REMINDERS—Mrs. William Deane, left, and Mrs. William Walker wear giant playing cards to publicize Astro Wives' Auxiliary annual dessert card party scheduled for 8 p.m., Oct. 12 in Astro cafeteria.

New Ballroom Dancing Classes For SD, Astro Start Next Week

Annual fall ballroom dancing classes, sponsored jointly by Convair SD and Astronautics, get under way next week.

Two classes are new and are set up for adults who wish to brush up on both their social and Latin dancing. The social class will meet at 7:30 p.m. each Thursday with the Latin class to be held at 8:30 p.m. each Tuesday.

Two classes offered fall under the heading of intermediate sessions for those who have had previous dancing instruction. Social dancing meets at 8 p.m. Mondays, while Latin sessions convene at 8:30 p.m. on Thursdays.

An advanced class for accomplished dancers is set for 8 p.m. each Friday.

A special teen-age class will meet at 7:30 p.m. on Tuesday.

All classes are taught at the McGrath Studios in the Pacific Ballroom, 1106 Broadway, downtown. No advance registration is necessary and each class meets once each week. Convair employees sign no contracts and pay low rates on a monthly basis, thanks to subsidy provided by CRA. Both couples and singles are welcome. Each class will remain open for newcomers through the first three sessions or three weeks.

For Convair employees desiring private lessons, special discount rates are available. Contact the McGrath Studios direct.

Martha Woodberry, ext. 1245, plant 1, is Convair SD CRA commissioner, while Bryan Weickersheimmer, ext. 3322, is Astro commissioner.

Convair Skaters Set Record As 73 Make Trip to Big Bear

Largest group of ice skaters ever to participate in a CRA-sponsored group excursion descended upon Big Bear Lake over the past weekend (Sept. 24-25).

The trip was a jointly sponsored venture of the Astro-Blades and the Convair SD Ice Skating Club. It drew 73 participants.

Wawona Lodge at Big Bear was leased by the Convair group for the weekend. It was the center of most social activities, including a dance, barbecue beef dinner and a midnight pizza party.

Focal point was Big Bear's Iceland skating rink where the Convair skaters held private morning sessions and took part in public sessions at other times. The lodge's heated swimming pool was also a crowd pleaser.

Sunday found many of the group taking time out to make the two-mile, hour-long ride up Big Bear's ski tow to the top of the mountain.

Response to this initial venture of the Astro-Blades to out-of-town sites has prompted E. H. Davies, CRA commissioner, to seek others for future trips.

Hunter Safety Class Crowded

Forty-one Convair SD and Astro youngsters have already completed the current series of CRA-sponsored hunter safety courses and another 37 are registered for upcoming classes.

The class schedule will continue until all interested students have had an opportunity to take the course, said Arnold Schrock, certified NRA instructor, who conducts classes at the CRA Range at Gillespie Field in El Cajon.

Reservations are now being taken for a course to be held Oct. 10, 12, and 15. Monday and Wednesday classes start at 7 p.m. and the Saturday session is held in the morning at 9. To register, call Schrock, ext. 665 or 1174, SD Plant 1, or BR-7-4958.

Circle R Next Stop For Convair Sweeps

A newly-scheduled Convair Golf Club sweeps will be played Oct. 15-16 at Circle R.

Convair SD and Astro golfers can register for the event starting today (Sept. 28) with Alma, ext. 552, Plant 2. Reservation deadline is Oct. 14.

The Circle R sweeps replaces the Oct. 22-23 event formerly scheduled at Flying Hills.

Lectures on Space Will Start Oct. 4

A series of special lectures on "Astronomy and Manned Space Travel" by F. A. Ford, Astronautics' chief of preliminary design, begins next Tuesday (Oct. 4) at Clairemont high school.

Open to the public, these lectures will last two hours and will run six weeks, meeting from 7:30 until 9:30 p.m. each Tuesday.

Last year Ford presented a series of 10 one-hour television programs on the same subject that were lauded extensively for their thoroughness and interest.

Three Events For Gun Club In Two Weeks

Another registered trap shoot, monthly club shoot and meeting are on the Convair Gun Club agenda during the next two weeks, all at the CRA club facilities at Gillespie Field.

Coming up first will be the regular skeet, trap and rifle shoot this Sunday (Oct. 2) starting at 9 a.m. Jack Swank and Ezra Johnson, SD and Astro CRA commissioners, promise prizes for winners in each category, and point out that luck, rather than skill, will be the basis for awards.

On the following Sunday (Oct. 9) the CRA Range will be readied at 9 a.m. for the registered Amateur Trap Shooting Association event.

Thrown up will be 100 targets at 16 yards in Classes A, B, C, and D. Another 100 targets are planned for the handicap event, and another 25 pair for the doubles bracket. Trophies will go to winners in each group plus extra trophies for the high-lady and high-junior in the handicap competition.

Next club meeting for SD and Astro gun enthusiasts will be held Tuesday (Oct. 11) starting a half hour early, at 7 p.m., in the CRA Clubhouse at Gillespie. An excellent film is planned as well as a free raffle and refreshments. The entire family is invited.

NEW DISNEYLAND DISCOUNT PRICES FOR FALL SEASON

Magic Kingdom Club's "Magic Key" ticket books, which include Disneyland admission and coupons good on any 10 rides, are again available to discount card holders for the fall-winter season.

Cards entitling the holder to purchase Disneyland discount ticket books for any member of his family are available free from all employee services outlets.

"Magic Key" books, for example, can be purchased at Disneyland by cardholders for $3.75, $3.25 and $2.75 for adults, juniors and children. These books contain tickets with maximum values of $6.60, $6.20 and $4.10 respectively.

During fall, Disneyland will be open Wednesday through Sunday from 10 a.m. to 6 p.m.

Reduced prices for "Dixieland at Disneyland," a "spectacular" to be held Oct. 1, can be obtained through employee services at Convair SD and Astro.

From 8 p.m. to 1 a.m. the event will feature six top Dixieland bands, fireworks, a special show and all Disneyland rides and attractions. Discount tickets, priced at $4.50, pay for everything. Box office price at Disneyland that evening will be $5.50.

Convair Couple Slates Slide Show Of Trip to Hawaii

A Convair couple, George and Thelma Marlor, will present a narrated color-slide program about Hawaii, in Balboa Park Recital Hall at 8 p.m., Oct. 8.

George (Dept. 342-1) and Thelma (Dept. 400-7) made the slide sequences on two recent trips to the islands. The series to be shown are entitled "Kauai" and "The Aloha State."

Special projection equipment is used to produce a motion-picture-like performance. Admission is free.

Between shows, hula dancers Cathie and Linda Coull, daughters of Mr. and Mrs. Clyde Coull, Astronautics Depts. 771 and 130-1, will perform. Their act includes the use of "black light" equipment, producing a colorful and exotic effect.

Sevigny Made Water Skiing Commissioner

Appointment of Eugene G. Sevigny as CRA commissioner of the Convair SD Water Ski Club was announced last week by J. K. Field, SD chief of employee services.

Sevigny succeeds Tom Mathews who held the position since February of 1958. Mathews' letter of resignation was read at the September meeting of the CRA Council.



Eugene Sevigny

Sevigny, 29, is a native of New York and holds a master's degree in aeronautical engineering from the Polytechnic Institute of Brooklyn. He joined Convair SD in March of 1959 and has been with the high speed wind tunnel (Dept. 69) since.

A two-year Army veteran, Sevigny also spent two years with the Bell Aircraft plant in Fort Worth, Texas, before completing his education.

The new commissioner was commodore of the Water Ski Club last year and has been groomed for the CRA position ever since Mathews anticipated his resignation some months ago. Sevigny, and his wife, Joan, make their home in Allied Gardens.

At present the Water Ski Club holds regular weekend events off the east shore of Tierra del Fuego, meets in competition with other ski clubs, and conducts monthly business and social meetings.

Color Guard Fills Booking Schedule

Convair SD Mounted Color Guard will make an Oct. 2 appearance at the Julian Apple Festival and be in the parade lineup Oct. 8 at a Spring Valley celebration.

The engagements will make it five weekends in a row that the color guard has been booked. Previously they rode at the Chula Vista Fiesta de la Luna, the Sheriff's Rodeo at Westgate Park and the Western Days and Rodeo in Elsinore.

At the present time openings are available in the color guard for Convair horsemen who own their own palominos. Anyone interested should contact Luke Barbour, ext. 1174, Plant 1, or HO-6-6536, after 5 p.m.

Convair Man Starts New Piano Classes

Convair people may now enter classes for beginners and advanced students taught by a Convair SD instructor, Enrique A. Rivera (Dept. 400-6).

Evening classes are sponsored by SD Adult Education program. Information can be obtained from Rivera at ext. 1069, Plant 1.

CRA Sports & Recreation Convairiety

Ground School Classes Will Start Next Week

A new free ground school course, sponsored by the CRA Solo Flyers will start next week and be open to all Convair SD people and family members interested in obtaining private or commercial pilot's licenses.

First of the 18-week, Wednesday-evening classes will be held Oct. 5, from 7:30 to 9:30 p.m., at Jim's Air Service, Lindbergh Field.

Back again to teach the course will be veteran Convair SD instructor Rex Robinson.

"Our new course will definitely be more comprehensive," said Robinson, "and students will be able to pursue studies leading to either private or commercial licenses."

Robinson pointed out that a recent FAA regulation requires that students show proficiency in instrument flying as part of final exam. He said this phase of flying would be covered in the course.

Present plans call for only the Wednesday evening class schedule. If enrollment, however, is too heavy, another session will be slated. Registrations can be made with Robinson starting Oct. 3 (Monday) at ext. 2271, Plant 1. Those unable to call may enroll at the first class.

Overnight Campout Scheduled Oct. 8 For SD Riding Club

An overnight campout Saturday (Oct. 8) at the Pine Valley Stables and Picnic Grounds has been scheduled for members and guests of Convair SD Riding Club.

Rental horses will be available for afternoon and night riding. Fees are $2.50 for the first hour and $2 for each additional hour payable in advance. Deadline for reservations and payment will be next Wednesday (Oct. 5) at 3 p.m.

Information concerning the campout and reservations can be obtained by calling Dottie Zanarini, ext. 1627, Plant 1, or Sue Props, ext. 2235, Plant 1.

Both supper and breakfast will be served in conjunction with the event, those attending are reminded to bring necessary eating tools as well as camping equipment.

Final campout details will be firmed at a club meeting Thursday (Oct. 6) at 7:30 p.m. in the CRA Clubhouse, Gillespie Field.

First Lobster Dive Planned Tomorrow

Delta Divers from Convair SD will hold their first lobster dive of the year at the exact minute the season opens at midnight tomorrow (Sept. 29).

Members and guests will meet at La Jolla Cove at 11 p.m. armed with underwater flashlights and ready to grab the first legal lobster at midnight. Since they must be caught by hand, even the lobster will have a sporting chance, according to Harry Ruscigno, club president.



ON TARGET — Sandra MacDonald (daughter of Charles MacDonald, Dept. 97-6) will reign as queen of IRC Archery Trophy Shoot Oct. 9.

Balboa Range Set for Shoot

Archers from Convair SD will be among leading contenders as well as hosts when the annual Industrial Recreation Council Trophy Shoot is held Oct. 9 at the Balboa Park Range.

Registrations will be accepted the day of the shoot, but an additional 50¢ penalty fee will be assessed as well as the regular registration fee. First events will start at 10 a.m.

* * *

Al Phipps, club spokesman, reports that the SD group recently selected a five-man team which will compete against other barebow squads. The first contest is tentatively scheduled Oct. 16 against a team in Riverside.

Captain of the Convair team is Harry Ross (Dept. 400), members are Roger Redden, Phipps (Dept. 401), Bob English (Dept. 34), and Tom Boling (Dept. 400).

Team members selected are those who compile highest scores in competition during each three-month period.

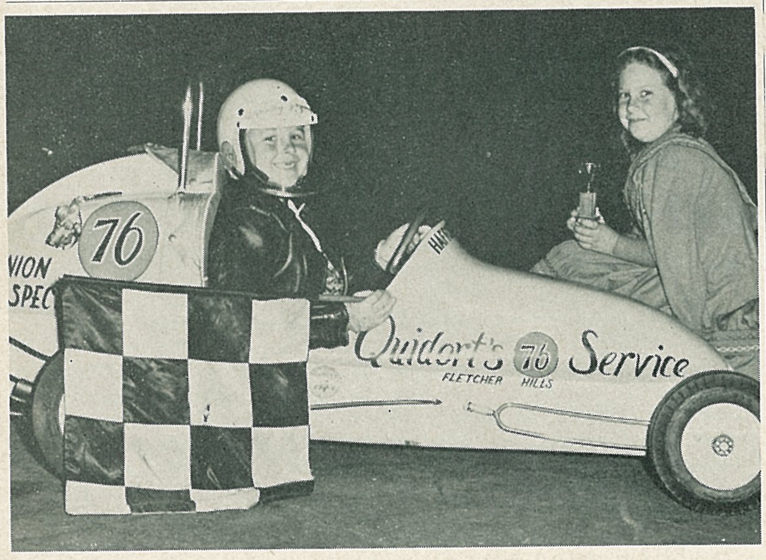
50 Attend First SD Spanish Class

Fifty Convair SD students showed up Sept. 19 for the first CRA-sponsored Spanish class for beginners in the Balboa Park Conference Bldg.

It was the largest turnout to date for the conversational Spanish course taught by Jim Hardison (Dept. 15). Last registrations for the current beginners' course will be taken next Monday (Oct. 3.)

Students who have some knowledge of the language will have a final opportunity to register Thursday (Oct. 6) for the intermediate class. Both courses will run for approximately 15 weeks on regular Monday and Thursday evening schedules between 7 and 9:30 p.m.

Courses are open to employees of Convair SD and their families. Beginners meet in Room 5 of the Conference Bldg., intermediate students assemble in Room 6.



FAST WORK—Some sort of record is claimed for eight-year-old Randy Hafford (son of George Hafford, SD Dept. 6) who Sept. 9 won second junior heat (eight laps) at El Cajon Speedway. It was only fourth race Randy ever entered and only third week of driving quarter midget!



PLANT CHAMPS—Dept. 280 this month won Convair SD shop softball league title, bumping Dept. 135 4-0 and 2-0 to win playoff. Crouching (from left): Gordon Place, Gene Everson, Richard Schweitzer, George Cooper and Don Nowka. Standing: O. T. Wares, Norm Dahl, D. Hoffmann, Howard Dodd, A. James, Les Phillips.

Jolting Jeep Jaunt Slated This Weekend

At least 200 jeeps will be wending their way over a rugged mountainous trail in the fifth annual Jeep Cavalcade this weekend, Oct. 1-2, reports Art Thomas (SD-Dept. 25), event chairman.

Planned as a family trip by San Diego Ridgerunners and Convair Jeep Club, the cross-country trek will test skill and endurance of both drivers and vehicles.

Anyone with a four-wheel drive vehicle is invited to join the crowd at the starting point, Desert Center on Hwys. 60-70, Saturday morning in time to fall in line by 7 a.m.

A dry camp will be set up that night at Chuckwalla Wells, about 20 miles away—a six-hour drive, said Thomas. Next day the caravan will continue into the back country to return to Hwy. 60-70 at Skyline, eight miles west of Desert Center, where it will break up. Everyone is reminded to go equipped with an adequate supply of water and gasoline.

The trail will be marked by painted stakes at every direction change or new road condition. "Although rough, the route is not dangerous," said Thomas who led seven jeeps over the same trail for a safety check early this month.

As head of the committee for the annual trip, he will be leading the parade in the vanguard vehicle. Also on the committee is another Convair SD man, Thomas Binder, Dept. 406.

Low Voices Needed In SD Choral Group

Alto and bass voices are especially in demand as Convair SD's mixed vocal chorus, the Choralaires, continue regular Monday evening rehearsals in the CRA Clubhouse on Pacific Hwy.

W. A. Vogel, director, said last week that most of the old members are back but added that losses have been concentrated among the lower voices and extended a special invitation to altos and basses to attend the 7:30 p.m. rehearsals.

He also said that plans are being formed to develop at least one smaller group, a quartet or trio, to sing for organizations that cannot use the full Choralaire complement.

Protein Formula Put on Sale Now

Hightower Protein Powder, a 50 per cent protein powder fortified with vitamins and minerals, is being sold in one-pound cans for $3.64 (includes tax) at Convair SD employee services and Prophet Company canteens, both plants.

Mixed with milk it can be used as a meal substitute for weight watchers. One pound equals 16 servings.

Last Opportunity For Charm School

Last-minute registrations for the new Convair SD beginning charm school are being taken at employee services, Plants 1 and 2.

Opening date has been postponed to Oct. 11.

CRA-subsidized classes will be held for six weeks, each Tuesday, 7-9 p.m., Convair SD executive dining room.

CRA Calendar

(Convair SD Recreation Association has some 40 activities in operation. For information on SD sports, call CRA headquarters, ext. 1245, Plant 1.)

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ARCHERY — IRC Trophy Shoot, Oct. 9, Balboa Park Range, starting at 10 a.m.

BRIDGE CLUB — Next session Tuesday (Oct. 4), 7:30 p.m., Hotel Barcelona, 326 Juniper St.

CHORALAIRES — Rehearsals Mondays, 7:30 p.m., CRA Clubhouse, Pacific Hwy.

DELTA DIVERS — Lobster dive tomorrow (Sept. 29). Meet at La Jolla Cove, 11 p.m.

GOLF — Convair Golf Club sweeps Oct. 15-16, Circle R course. Register by Oct. 14 with Alma, ext. 552, Plant 2.

GUN CLUB — Registration open for new hunter safety course starting Oct. 10. Call Arnold Schrock, BR-7-4958, or exts. 665-1174, Plant 1.

JEEP CLUB — Annual Jeep Cavalcade, Oct. 1-2. Leave from Desert Center, Hwys. 60-70, Oct. 1, 7 a.m.

PISTOL CLUB — Regular monthly shoot Sunday (Oct. 9) 9:30 a.m., SD Police Pistol Range.

RADIO CLUB — Meeting tomorrow (Sept. 29), 7:30 p.m., Harbor Drive headquarters.

RIDING CLUB — Meeting Oct. 6, 7:30 p.m., CRA Clubhouse, Gillespie Field. Overnight campout Pine Valley Stables Oct. 8-9. Call Dottie Zanarini, ext. 1627, Plant 1, or Sue Props, ext. 2235, Plant 1.

SOLO FLYERS — New ground school course starts Oct. 5, 7:30-9:30 p.m., Jim's Air Service, Lindbergh Field. Call Rex Robinson, ext. 2271, Plant 1.

SPANISH CLASSES — Registration closes Oct. 3 for beginners class, Mondays, 7-9:30 p.m., Room 5, Conference Bldg., Balboa Park; Oct. 6 for intermediate class, 7-9:30 p.m., Room 6.

SPORTS CAR CLUB — Film, "Alpine Valley," will be shown at meeting Wednesday (Oct. 5) at 7:30 p.m., Natural History Museum, Balboa Park.

WATER SKI CLUB — Potluck dinner 6:30 p.m. Oct. 6, Convair SD executive dining room. Regular skiing continues through this weekend (Oct. 1-2) off Tierra del Fuego, Mission Bay, between 9:30 a.m.-1:30 p.m.

WOMEN'S ACTIVITIES — Registration still open for beginning charm school postponed to Oct. 11, 7-9 p.m., Convair cafeteria executive dining room, Pacific Hwy. Call CRA office, ext. 1245, Plant 1.



IN SESSION—Management Club presidents from each of Convair's four operating divisions met in special two-day conference in Bldg. 19 in San Diego this month, first such session in Convair history. Conference was chairmanned by J. L. Budros, executive assistant to R. H. Biron, Convair vice president-administration. From left: L. G. Lawson, San Diego MC president; Biron; C. C. Utley, Fort Worth MC prexy; Budros; H. R. Daniels, Pomona president; and A. T. Wood, Astronautics prexy. Not shown but also at conference were Convair FW's John Watson, NMA Zone B vice president, and Jerry Janda of Astronautics, Zone A director for NMA.

Convair Men Fill Major Roles For National SAE Forum in LA

More than 30 Convair engineers, researchers and scientists, representing each of the operating divisions, will participate Oct. 10-14 in the Society of Automotive Engineers National Aeronautic Meeting and Manufacturing Forum in Los Angeles.

This year the four-day affair in the Ambassador Hotel will also include the third AFOSR (Air Force Office of Scientific Research) Astronautic Symposium.

Convair men who have handled planning responsibilities for the meeting include A. C. Esenwein, Convair executive vice president, who is sponsor of the aerospace manufacturing forum executive committee; R. C. Loomis, Convair vice president and San Diego manager, a member of the forum executive committee; and W. L. Young, Astro manager of operations, also a member of the forum executive committee.

In addition, Convair GO's J. H. Famme is a member of the aeronautic program planning committee and forum executive committee, and F. H. Sharp from SD is a member of the aeronautic program planning committee.

Convair Astro members of the AFOSR astronautic planning committee are Krafft A. Ehricke and W. W. Withee, who is also secretary of astronautic guidance session.

Taking part in the Manufacturing Forum from Convair SD will be C. L. Terrel, S. Y. Johnson, W. L. Carr, W. P. Woods, D. B. Acker. Pomona men will include C. V. Armstrong, H. A. Burdick and A. H. Dunn Jr. D. R. Archibald and L. S. Franklin will represent Convair Astronautics. Fort Worth will send E. W. Feddersen.

Presenting papers and leading discussion groups at the Aeronautic Meeting will be Convair SD's W. L. Johnston, F. D. Applegate, R. R. Hoover, D. P. Germeraad, and S. M. Horowitz. Astro men will include C. A. Overbey, R. H. Thomas, R. B. Wilson, G. R. Rewerts, P. J. Swanson. Pomona will be represented by Michael Voytish Jr.

Four Convair Astro men, D. H. Robey, Dr. H. F. Dunholter, G. H. Parker, and W. A. Daly will address the AFOSR Astronautic Symposium.

Convair Engineers Earn SMU Degrees

Eight Convair FW engineers recently received advanced degrees from Southern Methodist University. They are:

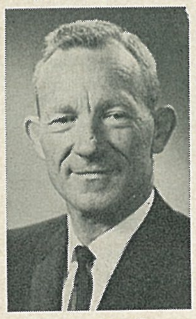
William A. Bauman, Dept. 6-1, master's in engineering with aeronautical engineering major.

Charles J. Newman, Dept. 6-2, Robert M. Drewry, Dept. 6-1, and Gerald T. Joyce, Dept. 6-1, master's degree in aeronautical engineering.

Charles C. Blackwell Jr., Stephen B. Dunkelberg, Herbert H. Hotchkiss, all Dept. 6-1, and William H. Penn, Dept. 6-4, master's in mechanical engineering.

R. M. Hatcher Transferred FW to SD To Assume Duties in Mfg. Research

R. M. Hatcher has been named manager of applied manufacturing research and process development at Convair SD, effective Sept. 19, according to an announcement by Conrad Kunze, assistant manager operations.



R. M. Hatcher

Hatcher moves to San Diego from Convair Fort Worth where he was chief of organization and systems.

In his new position he will have jurisdiction over factory estimating, operating controls and standards, manufacturing planning and methods, manufacturing development, and technical services, Kunze said.

A native of Milborn, Okla., Hatcher attended school in Wichita Falls, Texas, and later attended Texas State College and Southern Methodist University.

Before joining Convair FW four years ago he was manager of final assembly at Ford Aircraft Division of Ford Motor Co. in Kansas City, and prior to that was with North American Aviation Inc. in Dallas, Texas.

Reporting to Hatcher will be A. L. Hendricks, chief of operating controls and standards; R. D. Marks, chief of manufacturing planning and methods; B. R. Swarts, chief of technical services; F. A. Monahan, chief of manufacturing development.

Hatcher is located in Bldg. 1, Room 39, ext. 2141, mail zone 190-00, SD Plant 1.

JAL, Convair Men Exchange Gifts

In line with the age-old Oriental tradition of gifts from "my house to your house," all Convair SD men connected with the recent 880-M training course for 23 Japan Air Lines people are the proud owners of intricately hand-painted fans and wall brackets.

Reciprocating in the exchange of gifts, Convair furnished a selection of United States postage stamps to each of the JAL men, all avid stamp collectors.

Army Contract Aims At Missile Defense

Convair San Diego this month was awarded a contract in the neighborhood of $100,000 for a ballistic missile defense concept study from U. S. Army Ordnance District, Los Angeles, Calif.

Project leader of the six-month study is H. T. Wexler, engineering staff specialist at Convair SD.



ON GUARD—Convair F-102s fly in formation in Louisiana skies as part of complement now on duty with Air National Guard 122nd FIS, Alvin Callender Field, La.

Convair Members of Navy Reserve Unit Make Annual Cruise From NAS, Seattle

A half dozen Convair men from California plants returned this month from a couple of cool weeks in the Northwest as they took part in the Naval Air Reserve's annual "cruise."

On two weeks active duty training at Naval Air Station, Seattle, Wash., were John A. Ballard (Dept. 171), Douglas E. Moore (Dept. 232), and Harmon B. Root (Dept. 288-3) from Convair San Diego; Norman H. Heyder (Dept. 781) and Joseph A. Jette (Dept. 773) from Astronautics; and Mitchell J. Hopkins, Pomona Dept. 31.

As members of Anti-Submarine Squadron VS-771 they were assigned to crews flying the squadron's Grumman S2F "Tracker" aircraft.

Base of the VS-771 squadron is Naval Air Station Los Alamitos near Long Beach, Calif., where members report for duty one weekend each month.



ON DUTY—Convair men from SD, Astro, Pomona overflowing transport vehicle during Naval Air Reserve "cruise" at Seattle are (top row) from left: Harmon Root, SD; Mitchell Hopkins, Pomona; John Ballard, SD. In bottom row are Douglas Moore, SD; Norman Heyder and Joseph Jette, both of Astro.

KEY MEN INSPECT SUPERSONIC SEAT

About 100 Convair SD and Air Force men were at Palmdale facility this month for inspection of the supersonic seat going into production F-106s. First F-106A incorporating the seat is due for delivery to the AF in the near future.

During the Contractors Technical Compliance Inspection and Contractors Demonstration Inspection (Sept. 13-15) demonstrations of seat installation removal, operation, and related equipment were viewed by key AF personnel. Movies of flight tests and sled tests augmented visual examination.

Air Force officers were from F-106 Weapons System Project Office, Dayton, Ohio; ADC Hdqtrs., Ent AFB, Colo.; SAAMA, Kelly AFB, Texas; WRAMA, Robins AFB, Ga.; ATC Hdqtrs., Randolph AFB, Texas; OOAMA, Hill AFB, Utah; Norton AFB, Calif.; USAF Hdqtrs., Washington, D.C.; and AFPR office, Convair.

Convair's contingent was headed by L. E. Ottem of Model 8 project office.

Louisiana Air National Guard Assigned F-102 Interceptors

Three more Air National Guard squadrons in the United States are now equipped with Convair jet interceptors.

Units receiving F-102s within the last few weeks are 122nd Fighter Interceptor Squadron at Alvin Callender Field, near New Orleans, La.; 159th FIS, Imeson Airport, Jacksonville, Fla.; and 111th FIS, Ellington AFB, Houston, Texas.

First Air National Guard squadron to receive Convair planes was the 182nd FIS at Kelly AFB, San Antonio, Texas.

Word from Convair's San Antonio manager, J. J. Walden Jr., indicates that F-102s went into action with a bang, chasing smugglers trying to penetrate across the border from Mexico. Latest reports say that they have put at least one smuggling operator out of business.

Convair men on duty with the Air National Guard units are J. L. Gallant, field service rep, and F. W. Lightfoot, logistic support rep, at San Antonio; B. J. Bernhardt, field service rep, and Les Nelson, logistic support rep, at New Orleans; R. W. Klinkhammer, field service rep, and John K. Underwood, logistic support rep, at Jacksonville; C. M. Fox, field service rep, and Don Abele, logistic support rep, at Houston.

'Unclaimed Property' Turns Out to Be $52

L. G. Mulryan of SD Dept. 25 pocketed a $52 windfall last month all because Larry McEntee, also of maintenance, happened to see Mulryan's name in a legal advertisement concerning "unclaimed property."

The "property" turned out to be a Convair check dating back to 1947—so long ago that no one can figure out exactly what it was for, though Mulryan thinks it could have been for some untaken vacation. L. G. Facka of SD accounting recalled that there were a number of terminations at that time and possibly the claim had been confused with settlements owing departing employees.

Mulryan has been with Convair since 1940.

C-V CONVAIR

Published every other Wednesday.

GD GENERAL DYNAMICS

Convair Division of General Dynamics Corporation.

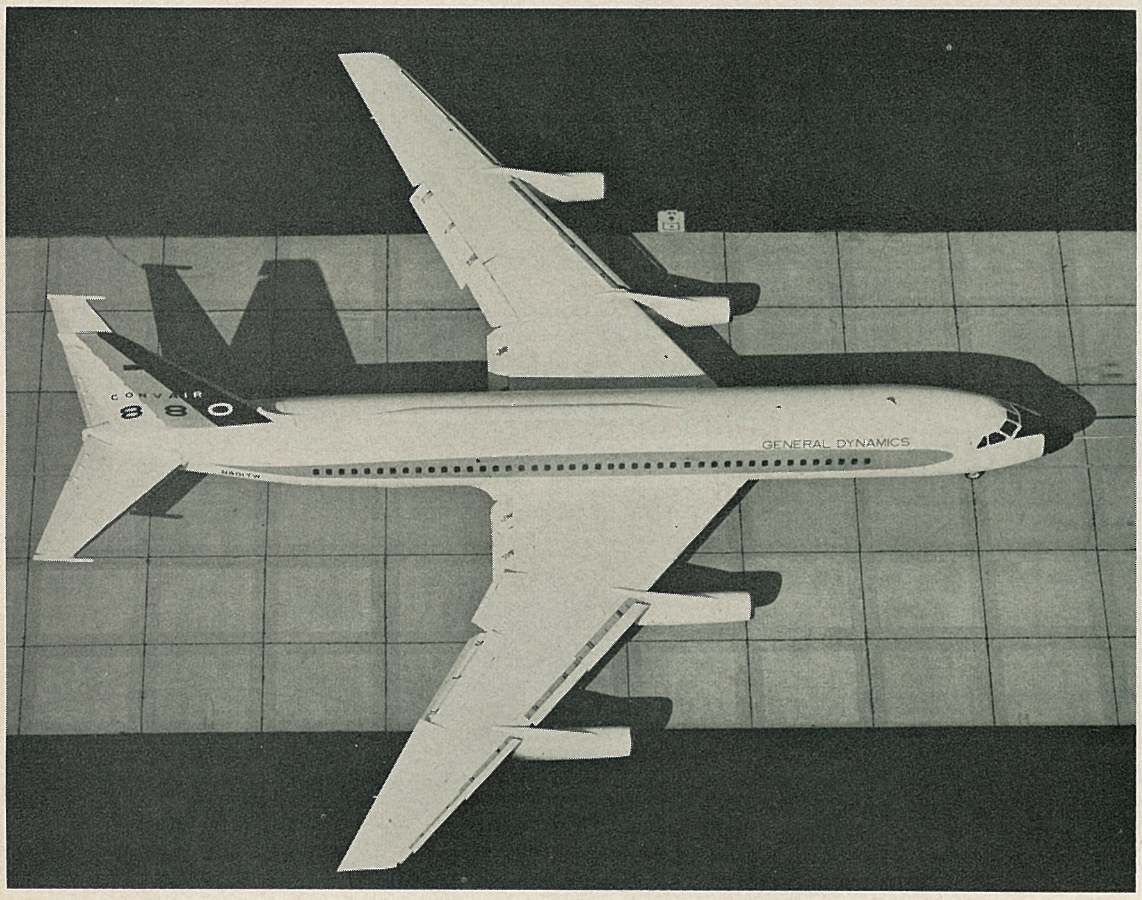
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SAN DIEGO, POMONA, ANTELOPE VALLEY, CALIF. — ASTRONAUTICS OFF-SITE BASES, FORT WORTH, TEX.



SUCCESSFUL FIRST—First Convair 880-M, snapped by SD photographer Ernie Flisrand from helicopter, stands on taxiway at Lindbergh Field after 2-hr. and 25-min. first flight Oct. 3. New leading edge wing slats of modified 880 configuration are plainly visible.



READY FOR DELTA—Checking out Delta Air Lines' seventh Convair 880 jetliner at Convair San Diego before Oct. 1 delivery are (from bottom) Capt. W. L. McBride, Delta pilot; R. E. Tidwell, Delta flight engineer; A. P. Wilson, SD production flight captain; and Ludy Knudsen, SD flight engineer. William Burgess, Delta co-pilot, is not shown.

Mobile Trainers Completed For Briefing Ground Crews

Three mobile trainers to be used at F-106 squadrons, built at Convair San Diego under an Air Force contract, were completed and ready for delivery a month ahead of time.

An Air Force team from Air Training Command and Wright Air Development Division were expected in the plant last week for final inspection and acceptance of the ARDC instrument system mobile trainers. Contract for the design and construction of mobile trainers was awarded Convair SD last fall.

The trainers will be used as supplementary equipment for the first three F-106 mobile training units delivered to the AF by Convair during the last year-and-a-half, explained R. H. Boggs, project engineer.

Incorporated in the airborne training units, they will go to AF squadrons slated to receive F-106s. The completely self-contained instrument systems trainers will be used primarily to brief ground crews in maintenance of the F-106 integrated flight instrumentation system.

An instructor at the control panel can demonstrate any flight situation exactly as in an actual plane. Production components of the instrument system are placed on a shelf below the display instruments with positions in the plane marked so that AF instrumentation and field mechanics can learn where they are installed and proper installation procedure.

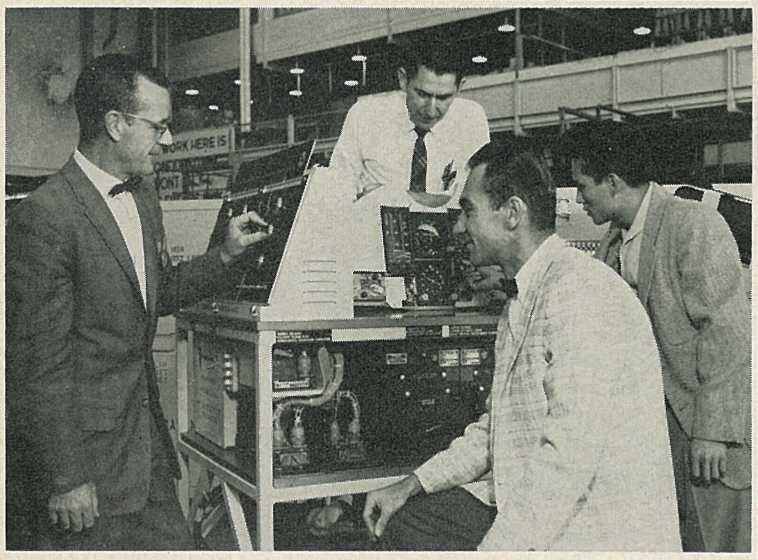
Convair SD design engineers working on the project with Boggs were R. M. McGregor, senior design engineer; Clarence Jennings, electrical design; K. S. (Danny) Wong, detailed design; and Bruce Shirk, mechanical design. Installation of instrumentation was done under R. E. Bowman, at that time assistant foreman of experimental electrical group, while mechanical assembly was directed by C. S. Rosefeld, Dept. 31 assistant foreman.

Dates For Year-End Holidays Announced

Two four-day weekends are included in year-end holiday schedules announced this week for California divisions.

Christmas holidays will be observed Friday, Dec. 23, and Monday, Dec. 26. New Year's holidays will be observed Friday, Dec. 30, and Monday, Jan. 2.

In addition, Thursday, Nov. 24, will be a holiday in observance of Thanksgiving.



MOBILE TRAINER—From left, R. H. Boggs, at control panel, C. S. Rosefeld, R. M. McGregor, and Danny Wong check over ARDC instrument systems mobile trainer designed and built at Convair SD for AF as F-106 training aid.

Lawson to Head Club Delegation To NMA Meeting

President L. G. Lawson will head a group of Convair SD Management Club officers to the 37th annual National Management Association convention Oct. 20-21 in Atlanta, Ga.

Theme of the meeting will be "Your Place in Management's Expanding Horizons."

SD delegates are expected to include C. L. Ambler, treasurer; R. M. Montgomery, recording secretary; E. V. Laird, financial secretary; R. W. Dill, first vice president; and E. R. Fink, second vice president.

One of the top NMA awards made at the convention will go to Convair Fort Worth Management Club, which has been recognized as the No. 1 company club in the nation for the second straight year.

It is based mainly on programming, community, and management development activities promoted by the club during the past year.

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A tour of the 880 production line and an 880 "open house" will highlight a special Management Club "Father and Children's Day" starting at 12 noon this Saturday (Oct. 15).

Kids and dads will meet in the new Convair cafeteria on Pacific Hwy. and enjoy a buffet lunch, soft drinks and ice cream. Between 1 and 2 p.m. "circus and carnival" entertainment will be staged on the cafeteria patio. The tour itself will be held between 2:30 and 4:30 p.m.

Fabrication departments at Plants 1 and 2 are sponsoring. Tickets can be obtained at club outlets priced at $1 for adults and 50¢ for children. Co-chairmen are R. A. Davis and A. E. Kemp Sr.

Last Tickets Today For Old Globe Play

Last chance for Convair SD theater-goers to buy reduced-priced tickets to Old Globe production, "Golden Fleecing," is today (Oct. 12).

Prices for tomorrow's (Oct. 13) Convair night showing are $1.50 and $1 for regular $2.50 and $2 seats.

880-M, Newest Version, Up 2½ Hours on Maiden Flight Off Calif. Coast

Convair's newest jetliner version, the 880-M, went aloft in initial flight last week (Oct. 3) to fly for 2 hours, 25 minutes off the coast of Southern California.

At the controls was Don Germeraad, SD chief engineering test pilot, who also took the first 880 aloft on Jan. 27, 1959. The plane left the ground at 11:25 a.m. and sat down at home port at 1:50 p.m.

Flight crew included W. H. Harse, co-pilot; D. T. Kjell and R. M. Bloom, control engineers; A. E. Hunt, flight test engineer; R. J. Dunn, instrumentation engineer.

Said V. L. Allwardt, senior flight test group engineer, "This successful first 880-M flight for shakedown checks of equipment and instrumentation is the first in the flight test program which will result in certification for airline service."

The first 880-M is the No. 1 Convair 880 jet transport, modified to the new configuration. The 880-M version is designed for use over short and medium-range airline routes.

Modifications make possible shorter landing and takeoff distances, increased thrust, greater fuel capacity, and better braking on slick runways.

Leading edge wing slats have been added to create additional lift. Powering the 880-M are four General Electric CJ-805-3B jet engines, each giving 450 more pounds of thrust at sea level than basic 880 engines. Landing gear has been designed for heavier operating weights to allow installation of additional fuel tanks to carry an extra 1,850 gallons of fuel, if desired.

Interior designs vary to meet needs of each airline customer.

Fourteen 880-Ms are now on order with first delivery dates scheduled for spring of 1961.

The first three production 880-Ms are now on the production line at Convair San Diego Plant 1.

A team of Convair SD customer service field service representatives is now at Taipei, Formosa, instructing Civil Air Transport maintenance crews on 880-M systems, while a group of Japan Air Lines personnel recently completed a training course at the Convair SD plant.

Stepped-up Retirement Planning Program in Effect For Convair

A stepped-up retirement planning program is going into effect at all Convair operating divisions.

Eventually, all employees who are approaching retirement age (65) will be reminded as much as a year or more in advance and will pass step by step through a counseling program to fit them for less active years.

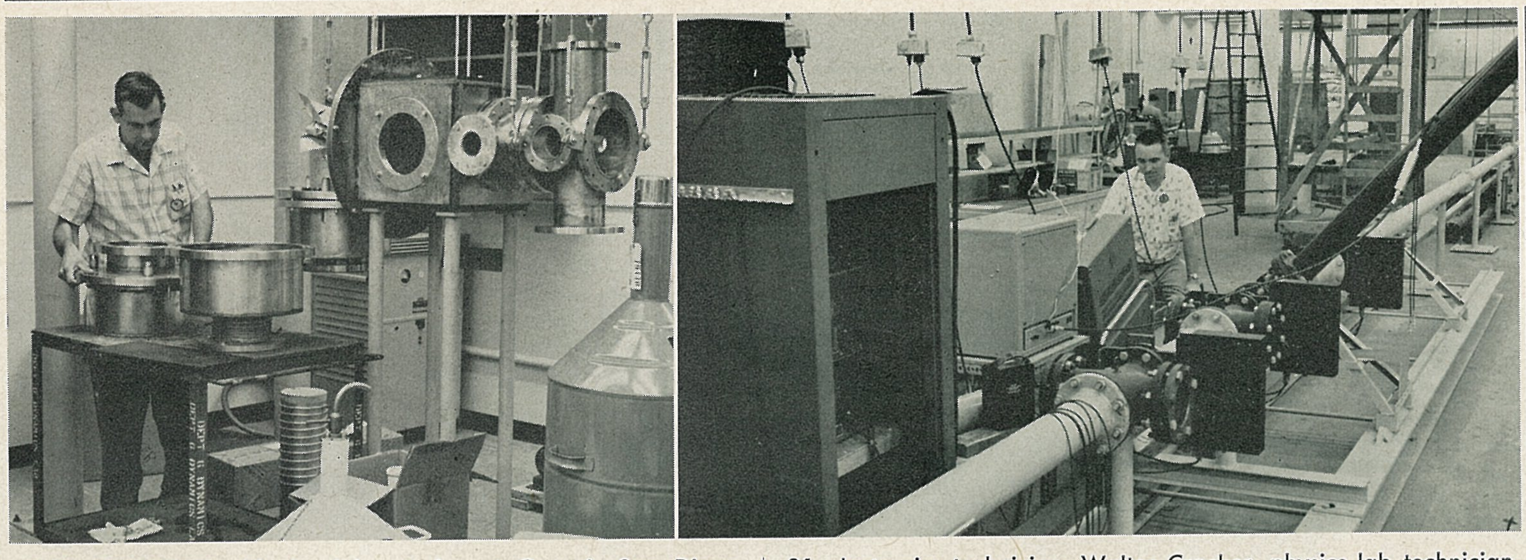
Currently, under new retirement policies, all who are now 65 or over will be subject to retirement in January of 1961. The first of these will be going through the counseling program this month.

The program involves a series of individual conferences (or group meetings, if desired) stressing different aspects of the matter, company retirement benefits, Social Security, health problems, tax concessions, etc. Theme of the program emphasizes the profitable use of leisure time and the manner in which a successful transition can be accomplished.

Convair for some years has followed a pre-retirement routine which is being expanded to offer more specific guidance.

During 1958 and 1959 approximately 280 went through the program each year, most of these from San Diego and Fort Worth divisions. So far in 1960 about 90 have sought retirement at FW, 150 at San Diego, 14 at Pomona and five at Astronautics.

Effective in January about 300 will be subject to retirement at SD, 52 at Astronautics, 43 at Pomona.



LAB EXPANDED—Physics laboratories at Convair San Diego move into new area in Bldg. 51 this month. Assisting in installation of new 30-cal. hypersonic "gun" at right is E. A. Meckstroth, Dept. 31 electronics technician. Walter Crocker, physics lab technician, assembles new neutral beam facility at left. New area provides 13,800 square feet of space for laboratory functions.

Acker Retires; Don Johnson Gets New Post

Donald L. Johnson has been appointed manager of systems and procedures for Convair San Diego, succeeding D. B. Acker, manager of industrial engineering, who has retired.

As manager of systems and procedures (a new title which replaces that of manager of industrial engineering) Johnson will report directly to R. C. Loomis, Convair vice president and San Diego manager.



Don Johnson

At the same time it was announced that the facilities control section of the industrial engineering department will report to H. A. Smith, chief plant engineer.

Other former industrial engineering personnel have been assigned directly to engineering and electronics departments as engineering facilities groups.

Johnson, who is a native of Shell Lake, Wis., joined Convair San Diego in 1952 as a manufacturing engineer. He was appointed factory methods supervisor in 1953 and chief of planning and methods in October of 1955.

A Navy veteran, Johnson's past experience also includes two years at Convair Fort Worth, in 1950 and 1951.

Acker, who retired, joined Convair in 1953 as head of factory methods and work standards, and has been manager of industrial engineering since 1954.

* * *

R. E. Bechtol, as chief of facilities planning, will report directly to R. M. Hatcher, SD manager of applied manufacturing research and process development (Dept. 190).

Reporting to Bechtol will be F. N. Holmes, supervisor of facilities planning, and W. F. Van Dusen, supervisor of facilities budgets.

D. J. Markovich, supervisor of facilities specifications and utilization records, will report to Smith.

G. H. Greim, as supervisor of electronics planning and methods, reports to W. S. Stroud, chief of electronics administration. E. W. Fowler, supervisor of engineering facilities, reports to G. E. Putness, assistant chief engineer.

Physics Laboratory Functions Consolidated in Bldg. 51 Area

In expansion of Convair San Diego physics research and experimental activities, a new laboratory area was completed and occupied early this month on the ground floor of Bldg. 51, Plant 1.

Consolidating physics laboratory functions, as much as possible, in one location, equipment has been brought from former locations in Bldgs. 35, 54, 54A, 51, 5, and the seaplane ramp. The new laboratories consist of 12 separate areas, occupying 13,800 square feet of space, on the west side of Bldg. 51.

The modernized area is air-conditioned and dust free with air double filtered. In addition, a new 1,500 KVA sub-station has been installed to supply additional electrical power.

Dr. D. V. Medved, directing solid state and physical electronics activities, will oversee neutral beam experiments, light sources and chemisorption, electron microscope, specimen preparation and diagnostics area, sputtering experiments and ion source test stands, friction research, sintering complex and microwave and rare gas experiments.

In charge of the plasma physics and electrical propulsion facility, recently added to physics lab capabilities, are Dr. J. B. Marion and Dr. John Wilcox.

A newly-installed aeroballistics range for ballistic missile re-entry studies is under direction of Dr. W. W. Short. The 100-ft. hypersonic gun is capable of propelling projectiles up to 15,000-18,000 feet per second.

The shock tube, moved from Bldg. 35, has had its range extended by 12 feet. It is in charge of Klaus Sulzmann.

A general workroom and stock room support all laboratory functions conducted by the 29 laboratory people assigned to the area.

Molecular beam experiments under Dr. Roy Neynaber will continue to be conducted in the original Bldg. 35 lab area with a second tube now being installed.

Nucleus of the first physics laboratories function was established at Convair San Diego in mid-1957 in Bldg. 35.

Dr. A. E. S. Green is chief of physics at Convair SD.

SD's Motion Picture Section Completes AF F-106 Film in Record Five Weeks

A film to go to Air Force squadrons equipped with F-106s has been completed by Convair San Diego motion picture section in record time of five weeks — start to finish.

In a task accomplished under a $33,000 contract from USAF, the training film, "F-106 Escape and Survival System," is called a test run under the new AF policy which will call for contractors to produce training aids in support of their own products, explained R. M. Hall, motion picture section assistant supervisor.

The Convair SD movie has been approved for release this month by Hdqtrs. USAF, Office of the Secretary of Air Force, and Department of Defense, Washington, D. C.

Shots were made by Convair SD photographers at Palmdale, Holloman AFB, of parachute jumps over Salton Sea, and of simulated dunkings and use of survival kits in San Diego Bay.

Acting as AF technical adviser and playing part of pilot in the film was 1st/Lt. Wm. F. Mickelson of Aero-Space Medical Laboratories, WADD. 2nd/Lt. Lewis Regelman of Air Pictorial and Charting Service, Orlando, Fla., was AF motion picture project adviser.

L. L. Hedgecock of SD motion picture section directed the film which was photographed by F. J. Miller and J. F. Schaaf. It was edited by W. A. Jenevein.

Publications Men Make F-106 Hops

Two more service publications men at Convair San Diego flew Mach 2 in Convair's F-106B late last month at Palmdale.

Giving them a feel of the "world's fastest" jet interceptor and the MA-1 system, flights in F-106s have, so far, been arranged for three SD service publications editors and writers. Dick Erman, Dept. 15 writer, was first to have a Mach 2 ride, with latest to go along on typical F-106 missions, Charles Keys, publications technical specialist, and Jack Meacham, Dept. 15 editor.

Keys and Meacham are both former World War II pilots in their own right. Keys was with the Air Force and Meacham with the Marine Corps.

Convair Apprentice Wins Local Contest, Will Compete in L.A.

A Convair SD man was judged top local apprentice after a 6½-hour test in the machine shop at San Diego Junior College Sept. 30.

William M. Cullum, apprentice in Dept. 401, will represent Convair and San Diego apprentices at a state contest sponsored by the Southern California Tool and Die Association Nov. 5 in Los Angeles.

Cullum and two other SD tool and die and machinist apprentices, Fred L. Simeth of Dept. 31, and Martin A. Stuhler, Dept. 401, took part in the preliminary contest with apprentices from Solar and Narmco.

Each was assigned a project on which he worked throughout the day. The competition included planning, work on the lathe, milling, and grinding.

JA Companies Formed at SD

Two teen-age companies, sponsored by Convair SD Management Club, went into business last week with organization meetings.

For the eighth year over two dozen young people from San Diego high schools will be learning business procedures under direction of the Convair group in the city-wide Junior Achievement program.

W. S. Childs of Dept. 7 heads the program as chief adviser and business adviser for both companies, with W. H. Marshall (Dept. 25) acting as Management Club board of control JA chairman.

One group will operate as the Apex Co. and manufacture corsages and novelty candles for the pre-Christmas trade.

Convair SD men helping as advisers of Apex Co. are Stuart Zimmerman (Dept. 7), sales adviser, and Sid Merryfield, also Dept. 7, production adviser.

The second group was to select name and product at its first meeting last Wednesday. Willard Martin (Dept. 31) is production adviser of this company. Position of sales adviser, to be filled by some Convair SD man, is still open, said Childs last week. All interested men, willing to devote time in helping young people learn business and production procedures, are asked to contact him at ext. 2550, Plant 1.

CONVAIR SD WIFE HONORED

Mrs. Roy F. Webber (husband in SD-Dept. 401) has been chosen one of 16 "women of valor" to be honored today (Oct. 12) by Temple Beth Israel Sisterhood. She was selected for her activities to emphasize the historical heritage of San Diego as the birthplace of California.



CENTURY OF SERVICE—Latest to receive 25-year emblems from R. C. Loomis, Convair vice president and SD manager, is this quartet of Convair SD men. From left, top row, A. R. Sharp, Dept. 31; H. J. Pierce, Dept. 25-1. Lower, H. E. Pasek, Dept. 3-3; John Woodhead, Dept. 101.

★ Convairiety ★

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Approximate current total circulation, over 65,000. News items and letters to the editor are solicited, but no advertising can be accepted.

SD Editorial Offices, Building 32, Plant 1, ext. 1071. Staff: Grayce Fath, Helen Pemberton, Fred Bettinger.

Astronautics Editorial Offices, Bldg. 8, Astro site, ext. 3322. Staff: Bryan Weickersheimmer, news editor; Willard Harwood.

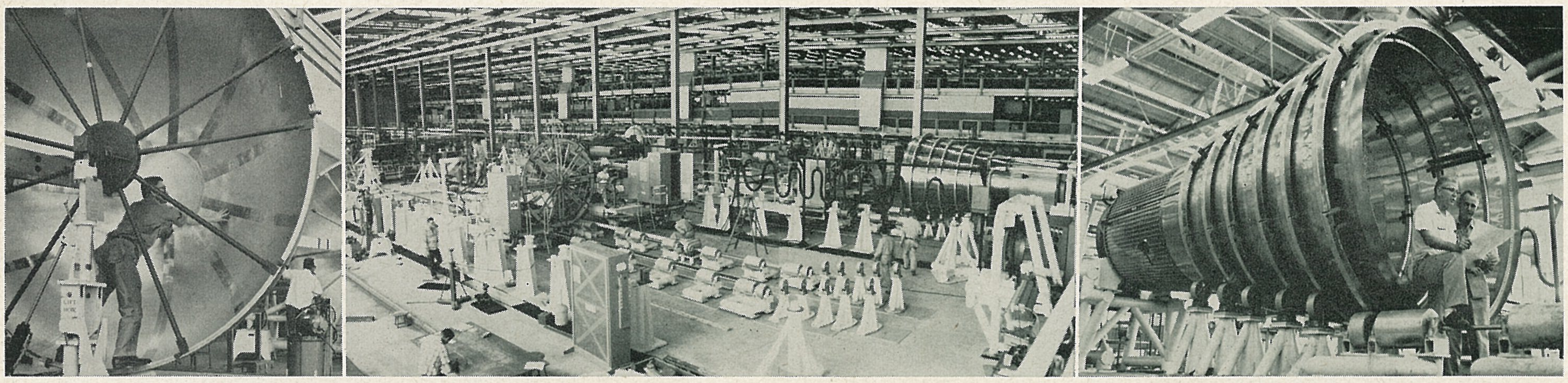
FW Editorial Offices, Col. 73C, ext. 2961. Mailing address: Convairiety, Convair, Fort Worth, Texas. Telephone PErshing 8-7311. Staff: Dave Lewis, news editor; Louise Sutton, Mary Beck.

Pomona Editorial Offices, Room 106-D, Bldg. 1, ext. 6226/5279, mail zone 3-3. Staff: James Combs Jr., news editor; Dorothy Keller.

Palmdale news representative, CRA office, Room 36, Bldg. 301B, ext. 331, Palmdale facility. Holloman: O. J. Ancel, industrial relations, ext. 20, Holloman AFB.



ADVANCING—Seven new graduates of Convair SD apprentice program are congratulated by R. C. Loomis, Convair vice president and San Diego manager, at certificate ceremony last month. Each of graduates is assigned to Convair SD, all are continuing education, some for higher degrees. From left: Robert K. McLeod, electronics technician; Donald E. Cornwall, aircraft electrician; Robert A. Barone, plaster patternmaker; Daniel J. Allen, aircraft construction; Loomis; Robert L. Weir, Monty W. Zink, Bill G. Garrett, all electronics technicians.



MOVING DAYS—This was scene at San Diego Plant 2 recently as Astronautics moved Atlas tank section operation into Bldg. 3. Center photo shows forward part of tank in position, ready for adding other rings. Pilings driven deep into ground insure accuracy of tooling. First tank built at Plant 2 is expected to be ready this month.

Production Continues on Schedule Despite Astro Tank Move to Plant 2

"On schedule" was the word this week for the largest shift of Convair Astronautics production facilities to be made since activation of Astro's Kearny Mesa plant in San Diego.

This is the relocation of Astronautics' major tank manufacturing operations from the main plant to Bldg. 3 of SD Plant 2.

Concurrent with moves, some changes in responsibilities have been made within the factory organization, according to J. P. Hopman, factory manager.

Lee Ely, major assembly general foreman, continues as head of Dept. 758, but shifts his office to Plant 2. Under him fall all tank manufacturing, involving welding and assembly of tank bulkheads, constant skins, taper skins and tank assembly.

Maynard Bjorstrom is now general foreman of a new department (759). This department will conduct tank detail fabrication, subassembly manufacture, hydro-pneumatic testing of completed tanks and tank cleaning. These operations remain at the main plant. In addition, Bjorstrom continues to direct proofing mockup activities and head production work on expanding projects within Astronautics.

H. D. "Dale" Cromartie has been named general foreman to guide Bjorstrom's former operations in primary and major assembly (Dept. 771), exclusive of the proofing mockup section.

All three report to L. L. Tuttle, Astro's superintendent of major and final assembly and missile checkout.

Tank production is now under way at Plant 2 with the first completed Atlas tank slated for delivery to the main plant this month. Other Plant 2 activities will include manufacture of tanks for both the Centaur and Saturn missile projects.

Most of the Plant 2 production effort uses new government capital equipment totaling better than $616,000 which has been installed in a program that began in June and ended in August.

Shift of facilities and tooling from the main plant has been in progress since early September. All forward, intermediate and aft bulkhead facilities have been moved. Major fixtures will begin to move Oct. 26 with a completion date of late December.

By early next week some 100 tank manufacturing employees will be working at Plant 2 with the remainder (about 300) to be

(Continued on Page 4)



SHUFFLED—Three Astro general foremen have new assignments as result of shift of tank manufacturing operations to Plant 2. Lee Ely, right, will head Plant 2, group. Maynard Bjorstrom, center, will take over tank operations remaining, while assuming new assignments and handling proofing mockup. H. D. "Dale" Cromartie, left, takes over Bjorstrom's former final assembly duties.



FREEZER—Big (96x60-inch) wooden box pumped full of carbon dioxide acts as deep freeze for Convair 880 door at SD structures lab in tests of door mechanism under icing conditions.

Jet 880 Door Mechanism Works Smoothly Despite Sub-Zero Cold

Freezing a door of a Convair 880 jet transport in summertime temperatures at Convair San Diego was the problem confronting SD structures lab engineers recently.

To find out exactly how the door mechanism of the 880 will work in icy weather, test engineers had to evolve a method of creating sub-zero conditions around the door of a production plane. Warm sunny Southland days saw the thermometer soaring to 80 degrees and over!

An end section of a large wooden box (96x60 in. big and a couple of feet deep), contoured to fit the curve of the plane and edged with felt seal to protect the craft's surface, was built at the SD seaplane ramp structures lab location. It was rolled into position against the side of the plane to isolate the door area. Then, 1,000 lbs. of liquid carbon dioxide was pumped into the box to create sub-zero temperatures.

In an average 20-minute test, structures lab test engineers were able to bring temperature of the outside door surface down to 50 degrees below zero. With the carbon dioxide turning to gas and cooling the door all the way through as it absorbed heat, inside surface of the door was brought down to minus 25 degrees.

Force needed to turn the door handle and open the door after it was frozen shut was measured by strain gauges. Thermocouples recorded temperatures during tests conducted over a period of several days. Results showed that 880 passengers need have no fear of being shut in a Convair jetliner until it thaws out after flying through freezing rain. Outside temperatures, no matter how low, had no adverse effect upon operation of the door, said K. V. Lawson of the commercial project office.

Structures lab engineers in charge of tests were F. C. Bader and S. S. Sifuentes under A. R. Vollmecke, structures lab assistant group engineer.

AF Parachutists Slide Out of C-130 To Try Out Escape System Chutes

Air Force parachutists have been sliding down a 1,000-lb. rack out of the back end of a C-130 in a series of tests of the parachutes incorporated in the Convair-designed supersonic ejection seat escape system.

Capt. Gerald E. LyVere plunged nearly three miles in the first human parachute reliability test at Naval Auxiliary Landing Field, El Centro, Calif., on Sept. 21. Similar drops, at 15,000 and 30,000 feet, were scheduled over the next couple of weeks.

T/Sgts. James A. Howell, Tom H. Rolf, and S/Sgt. Richard J. Marcum, all of 6511th Parachute Test Group, part of the AF Flight Test Center at Edwards AFB, Calif., also were to make live test drops over the desert area.

The ejection seat, planned for installation in Convair's F-106 jet interceptor, was slid down a 1,000-lb., U-shaped tilting steel and wood launching rack out of the Air Force cargo plane instead of being rocket-propelled as it will be in actual ejections.

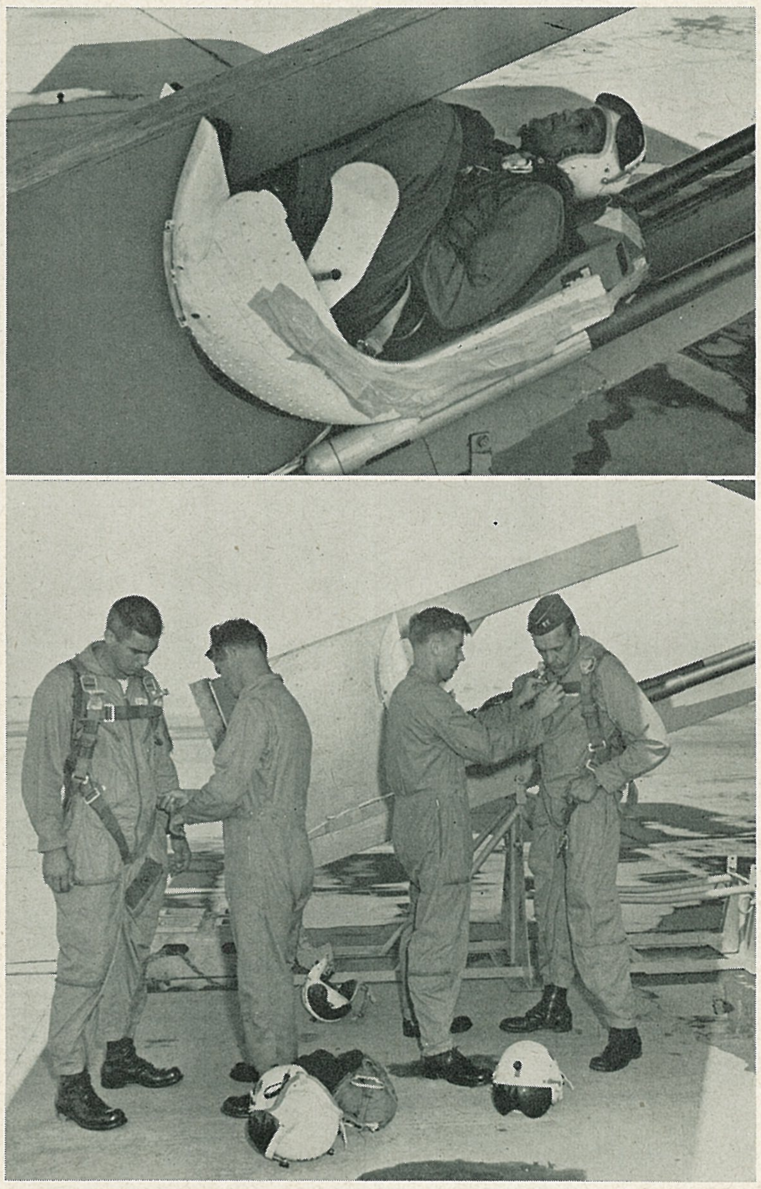
Foam rubber and plastic-covered, man-sized, 250-lb. steel dummies with movable joints were used in preliminary 15,000 and 30,000-ft. test drops at El Centro before the live tests began.

Russell E. Torgerson, Convair SD design engineer, has been Convair's liaison man in preparation for the parachute reliability tests. During the last 33 months he has shuttled from the San Diego plant to El Centro in his capacity as project technical adviser.

Coggan Resignation Announced at SD

Resignation of B. F. Coggan, Convair San Diego manager for eight years and, more recently, vice president-special products for Convair, was announced recently by Convair President J. V. Naish.

Coggan, who joined Convair in 1952, plans to devote his entire time to his varied business and industrial interests in the San Diego area.



DOWN THE WAYS—At top, Air Force Capt. Gerald E. LyVere lies in supersonic ejection seat on launching rack which slid him and seat out of C-130 cargo plane in first live parachute reliability tests of escape system over El Centro, Calif. In lower shot, four AF parachutists have dress rehearsal before their turns. From left are T/Sgt. James A. Howell, S/Sgt. Richard J. Marcum, T/Sgt. Tom H. Rolf, and Capt. LyVere.



SWEET SUCCESS—As Convair daughter Jacqueline Dixon, 14, youngest ever to swim Salton Sea, emerges from water she receives congratulatory hug from her coach, Carol Chaplin, who is well known long-distance swimmer in her own right.

Determined Convair SD Daughter Is Youngest to Swim Salton Sea

A 14-year-old Convair SD daughter last month became the youngest swimmer ever to stroke across Salton Sea, spanning the 10½ to 11½-mile course in six hours, five minutes and 57 seconds.

(The Sea is a landlocked body of water 241 ft. below actual sea level, fed by drainage from Imperial Valley's irrigated agriculture.)

As Jacqueline Dixon was going about setting the swim record, her father, John Dixon, Convair SD manager of long range planning, was having his own contest of sorts.

Eager to witness his daughter's performance, Dixon was driving to Salton Sea in fine fashion until, suddenly, the left front wheel spun itself right off the hub, sending the car into a skidding, sweeping curve.

When the dust settled, Dixon was uninjured, but stranded on a remote stretch of road between Julian and Ramona at about 1 o'clock in the morning. It was a matter of some hours before Dixon, with help of a passing motorist, was able to drive the crippled vehicle to a mechanic.

Nevertheless, Jacqueline did all right, even without her dad there to cheer her on. Accompanied by a guide boat in front of her, and an outboard to the side, Jacqueline stroked across as three AAU officials clocked her performance.

Though she didn't set a speed record, Jacqueline became by far the youngest to swim Salton Sea, which is famous (or infamous) for its choppy, up-and-down wave motion, heavy salt and high temperatures, sometimes as hot as 100 degrees — all of which adds up to something more than a pleasure swim.

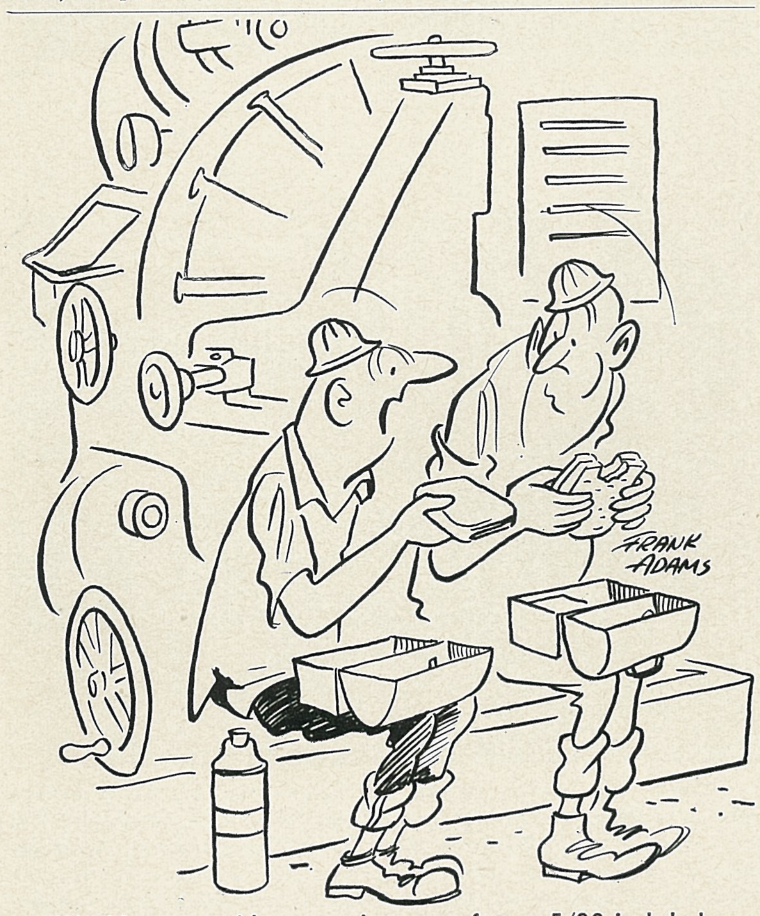
Her accomplishment, however, was not too surprising. She has won various "rough water swims" in the ocean off San Diego, coming all the way from fourth and fifth finishes last year to first-place wins this year.

Her idea of exercise is a little swim in the ocean. For example: during a recent workout she piled through seven miles of water.

According to her father, she started serious swimimng at age 6, and has been "in the swim" since — in pools, oceans and lakes.

A freshman in high school, Jacqueline hasn't indicated that she will try for future records, even occasionally threatens to quit swimming.

"Obviously, she doesn't take that statement too seriously," her father adds, "workouts and coaching are continuing at their usual pace — and definitely voluntarily on her part."



"Would you consider swapping one of your 5/32 inch bologna sandwiches for one of my delicious .006 inch lettuce sandwiches?"

Navy Contractor

Convair's Only Sea-Going Rep. Assigned to USS Norton Sound

Convair means many things to many people, but aboard the USS Norton Sound (AVM-1), Convair generally means one man—E. C. "Gene" Powers.

The Norton Sound is currently engaged in evaluating and flight testing Advanced Terrier and Tartar missiles, both products of Convair Pomona. Powers is Convair Pomona field service's technical representative aboard the ship. Generally speaking, when the ship sails, Powers sails with it.

He is probably the only Convair employee anywhere who currently has a stateroom aboard a U. S. Navy ship more or less permanently assigned to him.

Aboard the ship, Powers is the "contractor." He provides technical assistance on Navy missile evaluations and flight test programs, and he is responsible for the direction of Convair missile flight test programs conducted on the ship.

He also provides other liaison between Convair and the ship. If a technical problem concerning a missile arises, the Navy might call on Powers for assistance. If Powers is unable to supply a solution, he calls in a Convair specialist. He also frequently arranges for Convair instructors to lecture and give demonstrations to Navy personnel.

Powers is also frequently consulted by ship's officers when missile firing schedules are being arranged.

An electrical engineering graduate of Columbia University, Powers has been with Convair Pomona for almost 10 years, all of it in field service. He has been assigned to the Norton Sound for about two years. Previously he has been assigned to the Guided Missile Service Unit, Naval Weapons Center, Yorktown, Va., on two different occasions, and also at the Naval Ordnance Test Station, China Lake.

While serving on the East Coast, Powers spent a considerable amount of time aboard the Navy's first operational Terrier-armed ships, the USS Boston (CAG-1), USS Canberra (CAG-2), and the USS Gyatt (DDG-1).

Astro Tank Production Continues on Schedule

(Continued from Page 3)

shifted by the end of this year.

Also moving as tank facilities are shifted are support personnel from such departments as manufacturing control, inspection, maintenance and process control.

Facilities are transferred by an outside firm with moves on a regular schedule. Normally, a fixture requires about two weeks from start of move to return to production status.

Despite this machine loss, no interruption of Atlas production has been encountered or is expected, Ely said.

"By careful planning we are able to build up a backlog of components to carry us over during moves," Ely said. "The timing is very close and exacting, but it is being carried out without a hitch."

San Diego Will Host Quality Control Mgrs.

Quality control managers from Convair operating divisions will meet at Convair San Diego next week for the seventh quality control managers' conference.

As SD quality control manager, G. A. Covington is coordinating arrangements for the two-day meeting, Oct. 17-18.

Heading delegations from other Convair operating divisions will be J. Y. McClure, Fort Worth; D. R. Archibald, Astronautics; and A. C. McMaster, Pomona.

Conferences are held at six-month intervals at different division locations to give quality control leaders the opportunity of exchanging new ideas, and to report progress and evaluate results of quality control methods and procedures.

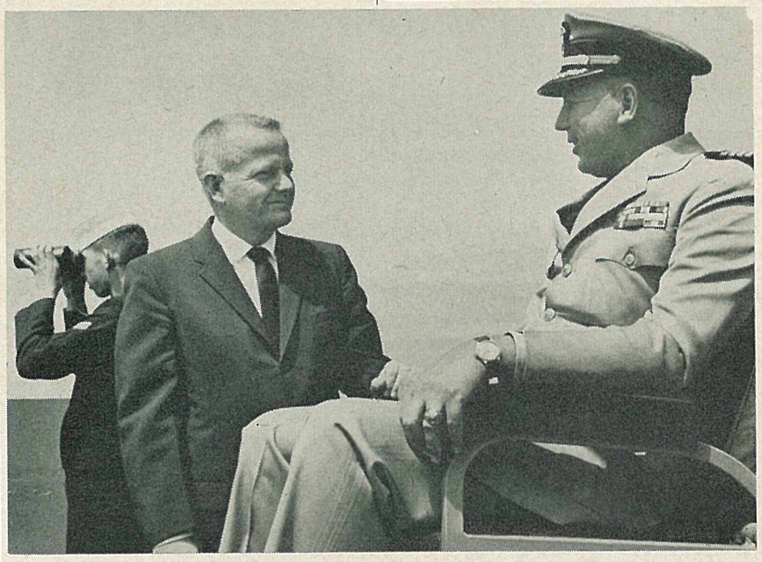
Welding and Metals Societies to Meet

San Diego chapters of American Welding Society and American Society for Metals will meet jointly Oct. 19 at El Morocco Restaurant in Lemon Grove starting with a 6:30 p.m. social hour.

SAE Will Hear Talk On Engine Fuels At Oct. 18 Meeting

San Diego Section of Society of Automotive Engineers will hear a discussion of relationship between engine fuel and engine operation at its Oct. 18 meeting.

Gilbert Way of Western Region offices of Ethyl Corp. will talk on "Utilization of Fuel Anti-Knock Quality by Automotive Engines," at the 8:15 meeting in Mission Room of Mission Valley Inn. A cocktail hour at 6:30 and dinner at 7:30 will precede business portion of the program. Dinner cost for members is $3; non-members, $3.50.



UNDER WAY—E. C. "Gene" Powers, Convair Pomona field service representative, chats with Capt. E. P. Bonner, USN, commanding officer of USS Norton Sound. Powers is only Convair man to have regularly assigned stateroom aboard U. S. Navy vessel.

Borrowed 'Cherry Picker' Comes to Atlas' Rescue

CAPE CANAVERAL — Astronautics forces here credited a prompt assist from Douglas Aircraft with helping launch Atlas 79-D on a successful 9,000-mile flight Sept. 19.

After the tower had been removed from the missile for countdown, it was necessary to make an examination of the nose cone umbilical cord high above the launch platform. Two courses were open, to delay the launch while the tower was moved back into place or to use an unusual device missilemen here call a "cherry picker."

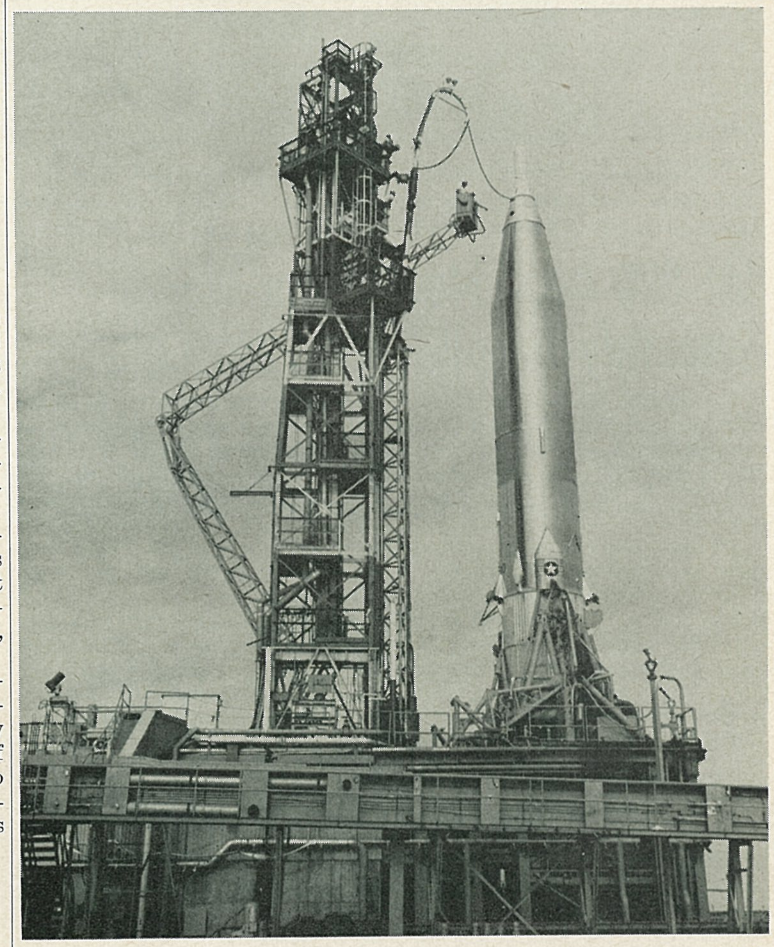
The latter is known officially as a "High Ranger." It consists of a folding tower mounted on a truck. The tower, with a small bucket for two men, can be hoisted 100 feet above the ground.

Convair has its own "cherry picker" but the unit had been returned to the factory for repairs. Someone thought of a similar rig Douglas operated and a loan request was instigated.

Douglas dispatched its "cherry picker" immediately and even sent along personnel to operate it and to lend a hand in repairs, if needed.

Within minutes the problem area was located and fixed and the missile reverted to countdawn.

Shortly thereafter Atlas 79-D blasted off to ride 9,000 miles downrange, the second Atlas to fly this full course.



HIGH ABOVE IT ALL—Astronautics forces at Cape Canaveral, Fla., recently called upon Douglas Aircraft for loan of device above known as "cherry picker" to check nose cone umbilical cord during countdown. Men in bucket made repairs without necessity of returning gantry tower to position. Convair's own "cherry picker" was down for repairs.



OBSERVERS—Watching demonstration of Astro's T-307 trainer during Air Force acceptance tests are (top photo) Astro's Wes Magnuson, left, and A. H. Gross; Major Raymond Kilpatrick, AFBMD; George Whitten, Aerospace Corp., and G. J. Derouchey, AF representative from Ogden Air Materiel Area. Below, Jack Gallaher, design engineer, is at control panel during acceptance test.

AF Acceptance Tests Conducted For 'E' Missile Check Vehicle

Final Air Force acceptance tests for the Convair-built T-307 pneumatic checkout vehicle trainer were held recently at Astronautics' Plant 2 facility.

The trainer will give Air Force personnel experience in all phases of operation of the pneumatic checkout trailer used with Atlas Series "E" missiles.

When connected to the trailer, the T-307 simulates missile pneumatic system operation, and can be controlled to indicate various types of possible malfunction. It will be used by the Air Training Command at Sheppard AFB, Tex.

Only a few weeks before the T-307 "sell-off," another Convair-built animated training device, T-324 for propellant loading instruction, was accepted by the Air Force.

Substantial Savings Proposed At Value Control Seminar

Savings totaling $203,441 were proposed at a recent two-week value control seminar at Convair FW attended by 40 Convair and vendor representatives.

An average of 56 per cent savings were chalked up by eight teams working on various cost-slashing projects.

A whopping 81 per cent savings was proposed by a combined Convair-vendor team which redesigned the B-58 escape rope assembly.

"The new assembly is less expensive and more reliable," said Bill McMurry, value control coordinator. "And it requires far less maintenance."

He said the team conceived the idea for the improved assembly from a "regular ski lift apparatus."

Biggest proposed dollar savings at the seminar—$78,500—went to a five-man team which suggested a simplified redesign of the B-58 pylon panel.

Considered a 73 per cent savings in cost, the redesign would cut both weight and manufacturing cost.

Six representatives from Eclipse-Pioneer, manufacturer of the B-58 flight control system, proposed a $11,668 — or 30 per cent — savings. "Their suggestion might well apply to other parts of the flight-control system," McMurry said.

Next value control seminar — an all-vendor affair — is tentatively scheduled to get under way Oct. 24 at Convair FW.

Team members and projects were:

Aircraft control panel—G. L. Muller, Bendix-Pacific; R. B. Spann, Bendix-Pacific; E. Moller, Dept. 6-4; H. I. Lawler, Dept. 81; and R. P. Mitchell, Dept. 6-1.

Welded assembly—H. W. Ekstrom, Advance Industries; V. Frank, Emerson; B. D. Doane, Dept. 6-4; T. F. McCrary, Dept. 6-5.

Console—Jack Brown, Industrial Products Division; L. R. Lenarz, Magnavox; B. A. Kelly, Dept. 6-1; C. F. Crabtree, Dept. 6-4; J. C. Holt, Dept. 4.

Fiber glass fairing—J. T. Critchfield, Melpar; J. E. Pagani, Minneapolis-Honeywell; G. M. Feild, Dept. 6-4; E. E. Ammons, Dept. 6-4; C. E. Hubert, Dept. 58.

Pylon panel—D. Fram, Sperry; J. G. Sourwine, Westinghouse; C. T. Small, Dept. 6-1; R. F. Pence, Dept. 6-2; H. R. Montgomery, Dept. 24-1.

Console assembly—W. G. Baumler, Sylvania; W. B. Schendel, Hughes; D. S. Rotbart, Hughes; C. C. Crickman, Dept. 6-4; F. G. Tyrrell, Dept. 6-4.

Escape rope assembly—W. H. Boysen, Hamilton-Standard; C. J. Russnak, Motorola; L. R. Gant, Dept. 6-9; R. H. Udlock, Dept. 6-8; M. R. A. Grant, Dept. 10.

E/P project—G. F. Roush, N. B. Murphy, S. J. Iacobucci, J. R. Starr, D. C. Walker, A. J. Wojtowicz of Eclipse-Pioneer.



CONFAB—Value control team plans more efficient escape rope assembly. From left, W. H. Boysen, Hamilton-Standard; L. R. Gant, Dept. 6-9; M. R. A. Grant, Dept. 10; C. J. Russnak, Motorola; and R. H. Udlock, Dept. 6-8.

Planes at War

Catalinas First Convair Airplanes To See Action in World War II

(This is 45th consecutive issue of Convairiety to carry an installment of Convair's history. It begins a report on how Convair fared in wartime.)

Two Convair planes were produced in volume during World War II—more than 2,000 PBY flying boats and 18,000 B-24 bombers. They served with distinction in every American theater and both saw action with the British prior to Pearl Harbor, and with several of the Allies.

Perhaps the most celebrated PBY was a Coastal Command Catalina that found the German battleship Bismarck 550 miles west of Land's End on May 26, 1941, some 24 hours after she had given the slip to Royal Navy surface vessels. Attacked and driven off, the PBY passed the word that brought a giant air-sea force (including more British Catalinas) to hound and harry Bismarck to her death May 27.

For the American forces, the PBY combat diary began a few minutes after sunrise Dec. 7, 1941, when a patrolling PBY sighted the periscope of a Japanese midget submarine off the entrance to Pearl Harbor. At 6:33 a.m. the pilot, Lt. William P. Tanner, dropped smoke pots to mark the spot, and a few minutes later the destroyer Ward attacked and sank the vessel. This was the Pacific Fleet's opening action of the war.

The few PBYs (three) that were aloft that Sunday morning were lucky. Of the 36 stationed at Kaneohe Bay, only these escaped Japanese air attacks that began at 7:55. Twenty-seven were destroyed and six damaged.

In the Philippines the advent of war was not much happier. The eyes of the Asiatic Fleet consisted of 28 Cats in Patrol Wing 10 (Capt. F. D. Wagner), based on the tenders Langley and Childs at Manila Bay and Olongapo; and four at Davao mothered by the tender William B. Preston. In the first few weeks 25 were expended in gallant efforts to stem the Japanese invasion.

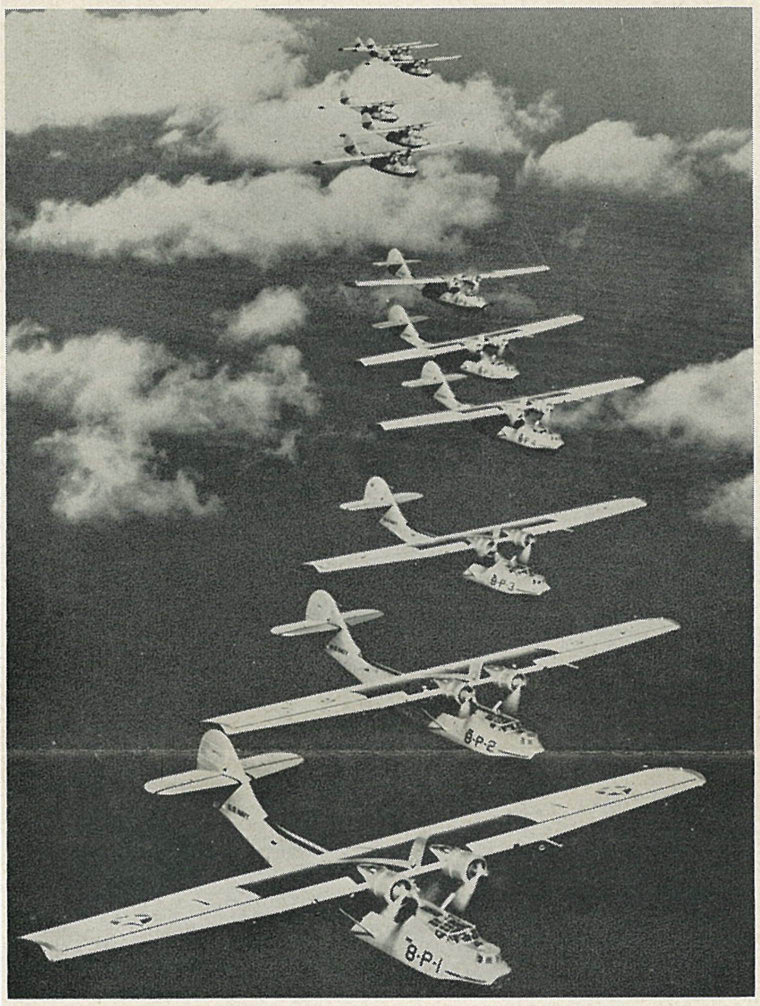
Soon evacuation became the principal occupation of the flying boats. On Dec. 24 two PBYs ferried Maj. Gen. L. H. Brereton, commander of the Army Far Eastern Air Force, and his staff to Australia. Such flights continued in the following months. On April 30, only a week before the final surrender, two Catalinas made a hazardous trip from Australia to take off some 50 persons—key officers of Gen. MacArthur's staff, and Army nurses. One boat was wrecked and another damaged in landing at Mindanao. Crewmen of the second aircraft succeeded in patching most of the hull, then "with true American resourcefulness, they placed the plumpest nurse directly over the largest remaining leak and so managed to take off for Australia."*

The turn of the tide in the Pacific started with victory in the naval Battle of Midway in the summer of 1942. This was a carrier-plane show, but the Cats stole a little of it.

Ens. Jack Reid's PBY made the first contact with the Japanese fleet the morning of June 3, sighting the supply train on a patrol nearly 700 miles west of Midway. Next morning Lt. W. L. Richards led four PBY-5As in a courageous torpedo attack on these fleet elements, and Ens. Gaylord D. Probst, reported missing after the action, scored a hit on the oiler Akebono Maru.

The main enemy striking force was discovered June 4 by Lts. Howard Ady and William Chase, co-pilots of a PBY-5 search plane. They sent repeated messages giving distance and bearing, then managed to elude planes launched against them by four Japanese carriers. After the Battle of Midway had been won, Cdr. Massie Hughes sent PBYs on daily flights to search for missing aviators. From bobbing life rafts they rescued 27—including the aforementioned Ens. Probst.

***Morison, History of U. S. Naval Operations in World War II, Vol. III.**



PLANES AT WAR—Convair PBYs were in forefront in early years of World War II, and added many a gallant chapter to struggle.

'Aviation Week' Editor to Talk

Astronautics Management Club will feature an address by David A. Anderton, European editor of "Aviation Week," at its meeting tonight (Oct. 12) at the Stardust Hotel, San Diego.

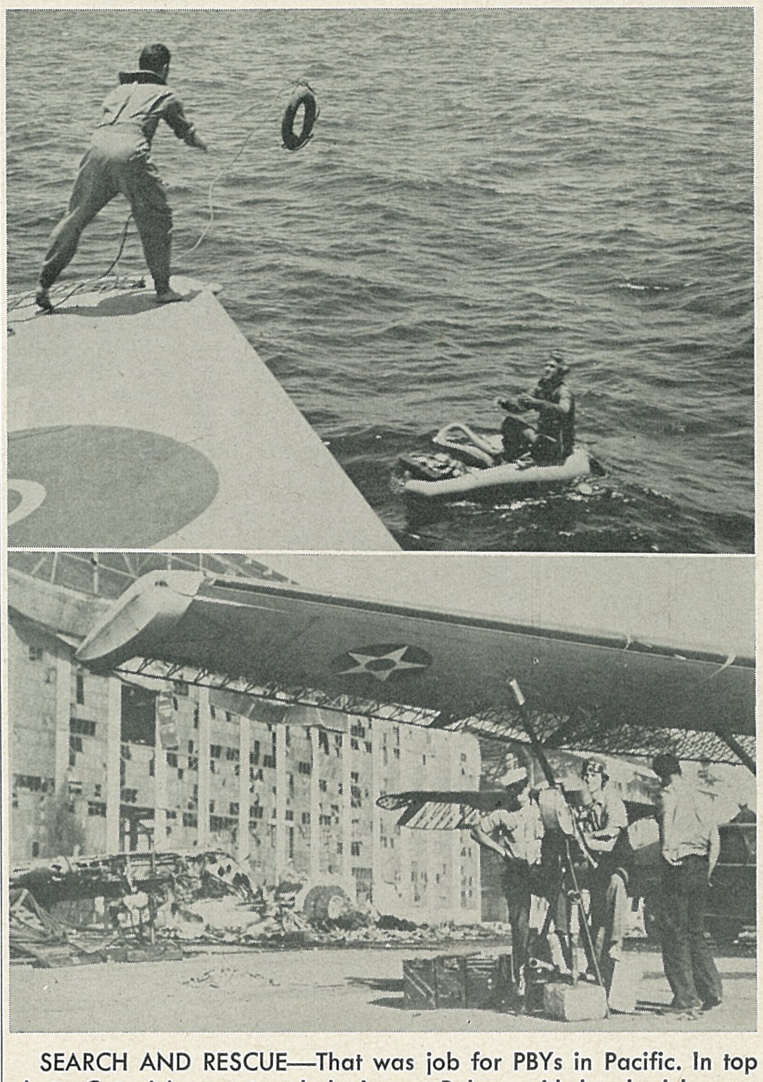
Anderton, a graduate aeronautical engineer, will review missile and aircraft progress in the United States and Russia, and discuss his travels in Russia and Soviet satellite nations.

Anderton has been with "Aviation Week" since 1950, and presently maintains an office in Geneva, Switzerland. He previously worked with major U.S. aircraft companies on power plant design, aerodynamics and ramjet missiles.

The program, sponsored by Astronautics controllers department, will be preceded by dinner at 6:30 p.m.

Is It News?

Call Convairiety



SEARCH AND RESCUE—That was job for PBYs in Pacific. In top photo Cat picks up stranded airman. Below, with bombed hangar in background at Ford Island, Honolulu, Navy crew improvises gun mount made of pipe. All but three of Cats stationed at Kaneohe Bay were destroyed or damaged by Pearl Harbor attack.

Log Book Entries

Service Emblems

SAN DIEGO

Service emblems due during the period Oct. 1 through Oct. 15.

Thirty-five-year: Dept. 1-17, Lucille F. Metcalf.

Thirty-year: Dept. 15-4, A. W. Koster.

Twenty-five-year: Dept. 6-03, A. C. Thurber; Dept. 15-6, N. V. Davidson; Dept. 34-1, K. A. Miller; Dept. 100, E. D. Robinson; Dept. 400-3, G. J. Kick.

Twenty-year: Dept. 1-17, H. C. Tafe; Dept. 4-0, Saul Freedman; Dept. 6, J. S. Bergstrom, W. A. Floyd, J. H. Morrow, R. L. Trussell, J. J. Wheeler Jr., A. W. Wiest; Dept. 8-5, B. V. Allen; Dept. 15, C. E. Hill, J. W. Waller.

Dept. 31, O. M. Hamman, K. M. Hawkins, M. G. Henderson, F. A. Novak, P. A. Pacheco; Dept. 100, R. L. Long; Dept. 133, J. R. Teague; Dept. 138, G. G. Baker; Dept. 139, A. C. Martin, E. R. Nielsen.

Dept. 140, J. L. Beeson, J. R. Valdez; Dept. 148, R. R. Lyman; Dept. 171-0, M. A. Puentes; Dept. 188, H. W. Balke, R. D. Johnson, C. E. Shyler; Dept. 218-0, A. L. Spears; Dept. 271, L. F. Boring; Dept. 400-1, F. G. Felley; Dept. 401-5, L. G. Grugal.

Fifteen-year: Dept. 3-5, F. P. Collier; Dept. 6-21, C. F. McMenamy; Dept. 15, A. W. Houck Jr., D. Z. Stewardson; Dept. 25, Antonio Cilona, J. M. Smith; Dept. 34-1, B. J. Wilson; Dept. 95-0, L. A. Gilmore; Dept. 97-6, M. E. Wyatt; Dept. 116-0, L. M. Hunsaker; Dept. 215, E. J. Miner; Dept. 267, Richard Velasco; Dept. 288-5, G. E. Ream.

Ten-year: Dept. 1-26, B. T. Umholtz; Dept. 6, N. M. Antonioli, R. V. Bucaro, P. F. Goforth, J. G. Howerton, R. W. Knelange Jr., W. F. Leonard, Ernest Mager, B. S. Stevens; Dept. 7-70, W. M. Sellers.

Dept. 14, T. G. Feeney, M. I. Newton, L. A. Rath, H. G. Rohde; Dept. 21-1, J. B. Dunn Jr; Dept. 25, C. W. Dowling, A. G. Gwin, D. E. Hoyt, Noble Marchino, M. I. Meggison, J. W. Wilson; Dept. 31, Charles Archambault, Liberatus Glaser, J. E. Prather, Alvino Ramirez, J. W. Reynolds, A. R. Wasterlain; Dept. 44-3, M. T. Carns.

Dept. 100, L. M. Goldberg; Dept. 101, L. E. Garrett, W. G. Ruthton, R. E. Tripp, E. G. Woods; Dept. 102, Vincent Galea, D. A. Kraiger; Dept. 115, L. M. Knapp; Dept. 116, E. D. Peek, S. A. Skillman.

Dept. 120, V. R. Landes, G. S. Urschel; Dept. 129, C. V. Core, L. Y. Spahr; Dept. 133, V. G. Asuncion, G. D. Uebel; Dept. 136, R. N. Camp, L. W. Womack; Dept. 138, H. N. Ellis, R. M. Santos; Dept. 139, Thomas Eggert; Dept. 142, G. W. Briceland; Dept. 145, J. H. Irving; Dept. 149, D. R. Gardiner, B. T. Gray, H. F. Joyce.

Dept. 160, Carl Craig, C. E. Flores, J. F. Lucas, Raul Lujan, E. P. Pegas, R. C. Taylor; Dept. 171-0, Henry Valderrama; Dept. 188-1, E. W. Graham; Dept. 190-1, J. W. Woodhouse; Dept. 192, M. L. Burke, L. S. Thomas; Dept. 197, E. S. Hovey, B. S. Matina.

Dept. 201, B. B. Provencio; Dept. 204, R. G. Gonzales, R. A. Salaz; Dept. 206, G. H. Snyder; Dept. 216, E. H. Bryant; Dept. 218, Maurice Tompkins; Dept. 223, H. Frankston, V. J. Neitzie, C. R. Reina.

Dept. 230, D. M. Markey; Dept. 231, R. S. Sanders; Dept. 266, J. C. Advincula, Clifton Gwartney; Dept. 271, W. A. Clark Jr., C. D. Farris, W. E. Meredith, T. G. Padilla; Dept. 288-3, W. A. Cutler, Mario Marchese Jr.

Dept. 292, O. P. Cocita, S. S. Cocita, D. W. Salewske; Dept. 358, J. C. Lawrence; Dept. 400, E. D. Bryans, J. W. Claxton, W. L. Hayes, A. M. Lloyd, N. W. Macek; Dept. 401, W. E. Pankratz, E. L. Patton, C. A. Sulander, W. G. Titmus, Clyde Wadsworth, D. F. Whitman, John Williamson.

HOLLOMAN AFB

Ten-year: Dept. 313-4, C. G. Sehorn.

PALMDALE

Ten-year: Dept. 326-0, J. R. Campbell.

Promotions

SAN DIEGO

Promotions to or within supervision effective Sept. 26.

Dept. 192, Manufacturing Control, Plant 1: To M/C general supervisor, M. S. Stepich. To M/C foreman, J. P. Schreffler.

Personals

SAN DIEGO

I wish to thank my many Convair friends at Astronautics, and Plants 1 and 2, San Diego operating division, for their many kind words and deeds when I left the company recently. I shall always recall my years at Convair with pride.

Nell Keller
(Astro Dept. 250.)

* * *

On behalf of Mrs. Robin Van Norman, may we express to our friends at Convair our sincere appreciation for their kindness in our recent bereavement.

Alice E. Hamill, Dept. 3-2,
and the
Allen Van Norman family, Dept. 6.

* * *

Our deepest appreciation is extended to our friends for their generosity, messages of sympathy and beautiful flowers during the illness and following the death of Johanna M. Gardner, wife of Clarence A. Gardner, Dept. 25, and mother of Melanie McAdams, Dept. 115.

Births

SAN DIEGO

BROWN—Son, David Alden, 9 lbs., 3 oz., born Sept. 10 to Mr. and Mrs. Terry L. Brown, Dept. 188.

CROCKER—Son, Stephen, 8 lbs., 13½ oz., born Sept. 27 to Mr. and Mrs. Walter Crocker, Dept. 6.

MARTINSON—Son, Marshall Boyd, 5 lbs, 7½ oz., born Sept. 12 to Mr. and Mrs. Q. B. Martinson, Dept. 215.

Deaths

SAN DIEGO

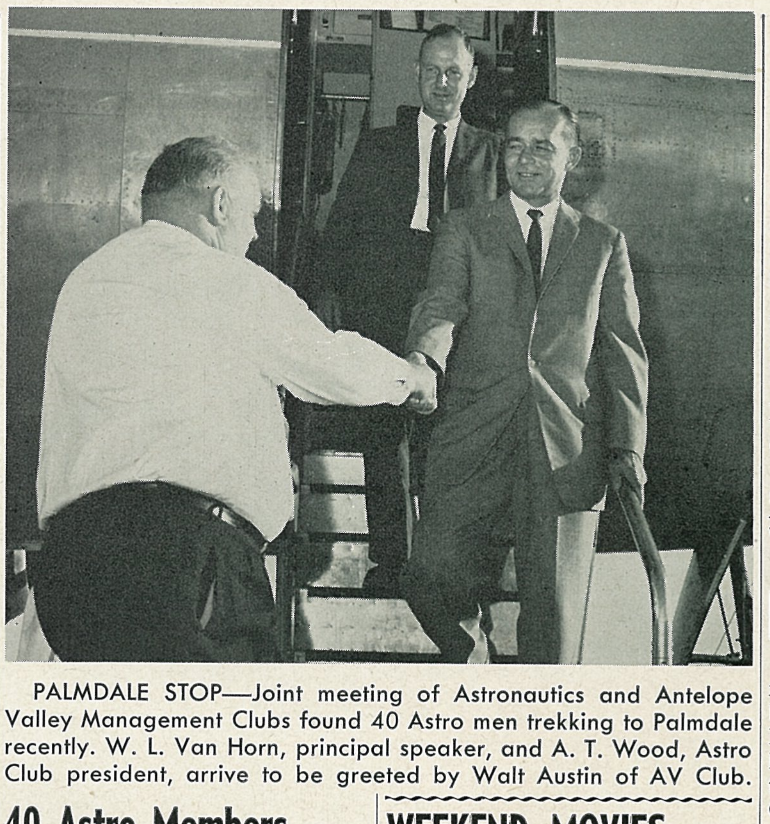
COVEN—Marceau, Dept. 201. Died Oct. 2. Survived by wife, Pearl M.; four brothers, three sisters, mother.

HILL—Carl V., Dept. 6-3. Died Oct. 4. Survived by wife, Marilyn D. Hill.

MILLER—Oscar W., Dept. 266. Died Oct. 1. Survived by wife, Letha M.; three sisters, two brothers.

RULEY—George A Jr., Dept. 120. Died Sept. 18. Survived by wife, Blanche; father, G. A. Ruley Sr.

SWARTS—V. E., Dept. 171. Died Sept. 24. Survived by wife, Margaret.



PALMDALE STOP—Joint meeting of Astronautics and Antelope Valley Management Clubs found 40 Astro men trekking to Palmdale recently. W. L. Van Horn, principal speaker, and A. T. Wood, Astro Club president, arrive to be greeted by Walt Austin of AV Club.

40 Astro Members At Joint Meeting In Antelope Valley

ANTELOPE VALLEY—Members of the Convair Antelope Valley Management Club on Sept. 23 entertained 40 members of the Astronautics Management Club in a special joint meeting staged at the Antelope Valley Country Club.

W. L. Van Horn, Astro's manager of long range planning, was guest speaker. He spoke on "Convair's Future and You." Van Horn was introduced by Travis Maloy, Astro's MSTS manager.

One of the highlights of the meeting was the retiring of the Antelope Valley Club's old banner and the unfurling of the new banner. The latter includes an "updated" emblem consisting of an Atlas ICBM, plus a F-106 fighter in addition to the National Management Association shield.

R. A. "Dick" Clark, MSTS test conductor, was the recipient of the group's AVMAC award, presented by V. E. Tooles, MSTS security chief.

Astronautics Club members flew to the meeting in Astro's Convair-Liner 240.

Dessert Card Party Set For Cafeteria

More than 300 persons are expected to attend the Astro Wives' dessert card party at 8 p.m. today (Oct. 12) in the Astro cafeteria.

A limited number of tickets priced at $1 each will be available at the door for tables of four players. All proceeds from the event will be used for the Con-Trib - Salvation Army children's Christmas party.

A variety of table prizes for the event have been donated by the Clairemont Quad and Square Merchants' Association.

Convair Daughter, 16, Princess Candidate

Dara Jean Birch, 16, daughter of G. K. Birch, Astro Dept. 811-2, is a candidate for Cinderella Princess of the Nov. 20 Mother Goose Parade in El Cajon.

Dara was nominated by Helix High, where she is a junior. The Cinderella Princess will be crowned following judging of candidates Nov. 5.

Retirements

SAN DIEGO

BRADY—H. C., Dept. 400. Seniority date Feb. 6, 1940, retirement effective Sept. 12, 1960.

KLECAN—John T., Dept. 149. Seniority date Jan. 6, 1944, retirement effective Sept. 30, 1960.

LEWIS—Allen, Dept. 603-7. Seniority date July 17, 1952, retirement effective Sept. 20, 1960.

SCHEER—Alfred E., Dept. 7. Seniority date Aug. 6, 1956, retirement effective Sept. 30, 1960.

ZORN—Clarence C., Dept. 3-6. Seniority date May 14, 1956, retirement effective Sept. 30, 1960.

PALMDALE

GUSKY — Frank, Dept. 321-2. Seniority date Feb. 26, 1958, retirement effective Sept. 30, 1960.

WEEKEND MOVIES OFFERED FOR 50c

Convair SD and Astro film fans will be able to see early-run movies Friday, Saturday and Sunday evenings starting this weekend (Oct. 14) for only 50¢ per person at the Adams Theater, 3325 Adams Ave.

Convair persons and members of their family will be admitted at the reduced price by merely showing their Convair ID card at the box office. Children (under 12) will be admitted free when accompanied by an adult.

The program is being sponsored by Industrial Recreation Council of San Diego. Following is film fare for October: Oct. 14-15-16: "The Bell Boy," and "Cash McCall." Oct. 21-22-23: "The Lost World," and "Hercules Unchained." Oct. 28-29-30: "Ocean's 11," "Dog of Flanders."

Chapter of ASTME Will Hear SD Man

W. L. Carr of Convair SD Dept. 190, applied manufacturing research and process development, will speak at the Oct. 14 meeting of Student Chapter No. 23, American Society of Tool and Manufacturing Engineers.

His topic will be "The World of Carbides." All Convair SD and Astro people are invited to hear the discussion scheduled at 7 p.m. in Room T326, SD Junior College.

This Saturday (Oct. 15) ASTME members will be guests of SD Management Club on a tour of the Convair 880 production facilities at Plant 1.

SD, Astro Players In 'Golden Fleecing'

Convair employees with a theatrical bent are active in the Old Globe Theater production of "Golden Fleecing," now playing nightly (except Mondays) through Oct. 23.

Included in the cast are Seymour Horowitz, Convair SD Dept. 6, who has been active in a number of local theater groups, and Janice Fuller, 18 (daughter of Lee Fuller, Astro Dept. 331, Plant 2) who has previously appeared in San Diego Junior College productions.

Rockhounds to Try Search in Mexico

Astro CRA Rockhounds will hold a business meeting tomorrow (Oct. 13) at 7:30 p.m. in the cafeteria.

Plans will be discussed for the club's November field trip into Mexico in search of specimens of ryolite (Mexican wonder stone) and petrified wood.

The Mexico trip is an annual event sponsored by the Imperial County Gem and Mineral Society. Astro's Rockhounds have participated with considerable success in previous years.

Astro Couple Sweeps Singles To Lead Convair Net Tourney

Convair Astronautics tennis players have finally found a way to "beat" Gary Russell, three-time CRA plant champion. Send him out of town when the tournament is in progress!

Russell was away on company business Sept. 17-18 and 24-25 when the annual tournament was held at Morley Field. As a result Astro crowned its first husband-wife champions, John and Flora Cannau.

John Cannau won the men's singles event with a 3-6, 7-5, 11-9 victory over Ben Cendali. Flora Cannau grabbed the women's singles with a 3-6, 6-4, 6-4 win over Joy Andrusko.

The doubles championship (men's) went to Commissioner Larry Chambers and Chet Dutton in a 6-3, 6-3 match with Cendali and Bill Johncox.

The tournament, second largest ever staged by CRA in San Diego, drew 17 doubles entries, 41 men's entries and seven women. Players from both Astronautics and San Diego took part.

'Beatnik Box Social' Planned By Valley Convair Wives Club

ANTELOPE VALLEY—Plans for a "Beatnik Box Social" to be held Oct. 22 at the home of Mrs. Roy Kurtzman, president, have been announced by the Antelope Valley Convair Wives Club.

This organization includes wives of both Astronautics MSTS and Convair Palmdale employees working in Antelope Valley.

Those taking part in the 7:30 p.m. affair will bring a buffet supper packed in a shoe box. Husbands will bid for the boxes during an auction session and will dine with the wife who brought the box.

Beatnik dress will be required with penalties for those who arrive without it.

Reservations for the affair may be made by calling WH-2-5685 after 6 p.m.

Officers for the coming year, in addition to Mrs. Kurtzman, wife of a MSTS employee, are: Mrs. Roy Russell (Palmdale), vice president; Mrs. Don Winston (Palmdale), secretary; Mrs. Alfred Salazer (MSTS), corresponding secretary; and Mrs. William Lopez (MSTS), treasurer.

Committee chairmen include: Mrs. Hans Hansen (MSTS), ways and means; Mrs. Richard Clark (MSTS), public relations; Mrs. Dottie McMains (Palmdale), publicity; Mrs. William Thielman (Palmdale), recreation; Mrs. Robert Gore (MSTS), hospitality; Mrs. James Olderich (MSTS), historian; Mrs. John Ryan (MSTS), membership; and Mrs. George Peck (MSTS), parliamentarian.

The initial winter meeting was staged Sept. 22 at Aleck's Valley Club. Mrs. George Peck was in charge of an Oct. 4 luncheon.

Floral Arranging Topic at Meeting Scheduled Tonight

All Convair San Diego and Astro flower lovers will have a chance to see a demonstration of the art of Japanese arrangements tonight (Oct. 12).

An invitation is issued by Convair SD Garden Club to all Convair people and members of their families interested in floral arrangements to attend the 7:30 p.m. meeting in the Floral Association Bldg., Balboa Park. The demonstration will be presented by Mrs. Frank Morgan, whose husband is in San Diego Dept. 6.

Plans for the annual Chrysanthemum Show set for Oct. 30 will also be under discussion, said E. L. Zimmerman, CRA commissioner. Members of the Garden Club will be participating in the SD County Floral Association show next month (Nov. 5-6) as well as in their own CRA-sponsored fall flower show, he said.

New Dancing Classes Open

New fall ballroom dancing classes sponsored jointly by CRA at Convair San Diego and Astronautics are still open to newcomers.

Classes began last week at McGrath Studios, 1106 Broadway, downtown. They will continue to meet one night a week throughout the winter months. No advance registration is necessary and no contracts required. Payments of small fees are by the month.

A beginning or brush-up class in social dancing meets at 7:30 p.m. each Thursday. A beginning Latin class meets at 8:30 p.m. each Tuesday.

Intermediate social sessions are held at 8 p.m. on Monday with intermediate Latin classes at 8:30 p.m. Thursday. An advanced dance class meets at 8 p.m. Friday.

A special teen-age class is held at 7:30 p.m. Tuesday. Private lessons may be arranged by contacting the studio direct.

Auxiliary to Meet At Ye Golden Lion

Astro Wives' Auxiliary will hold a luncheon meeting at 11:30 a.m., Oct. 19 at Ye Golden Lion.

The luncheon is designed to acquaint new members with the club and its functions, and those attending have been urged to bring along at least one new member. A prize will be awarded to the wife bringing the most prospective members.

Reservations may be made with Dixie Husted, CY-5-0593.

Dept. 597-3 Wins In 'Sudden Death' Softball Play-off

League-leading department softball teams from Astronautics Depts. 597-3 and 344 battled for the plant championship recently, with Dept. 597-3 winning by a score of 11 to 1.

The plant champions led the National League in season's play, while Dept. 344 had outscored American League competition.

The championship was decided on the basis of a single game, rather than the usual three-game series, due to the many transfers of Dept. 344 players to off-site assignments.

Members of the championship and runner-up teams will be presented with appropriate CRA trophies in the near future.

SD, Astro Groups At Trailer Rally

Astro Travelers, CRA-sponsored trailer club, and its Convair SD counterpart, the Road Runners, joined with other area trailer clubs in a recent rally at Del Mar Fairgrounds.

The Second Annual Travel Trailer Club of America Border District Rally found families of more than 280 trailer enthusiasts taking part.

Toastmasters Club Selects Astro Men

Raoul M. Morales, Astro Dept. 335-2, was installed recently as president of the La Jolla Toastmasters Club.

The club's new educational vice president is Al Ruark, Astro Dept. 521-1, and Toastmasters District Five educational director is Jerry Young, Convair SD Dept. 15-4.

CRA Sports & Recreation Convairiety



STILL FRIENDS—Bill Glithero (Dept. 192), left, and C. W. Maxfield (Dept. 120), right, runner-up and winner, respectively, in annual SD CRA Match Play Championships, put on "act" for benefit of cameraman. Maxfield edged Glithero 1 up after 19 holes. "Keeping score" is CRA Golf Commissioner Ken Wulfemeyer.

Road Runners Plan Outing on Weekend To Live Oaks Park

Live Oaks County Park will be the destination for the Convair SD Road Runners, CRA travel trailer group, this weekend (Oct. 14-15-16). The park is located two miles west of Hwy. 395 near Fallbrook.

The trailer club is one of the fastest-growing CRA activities at the present time. More than 30 Convair SD families have taken out membership since the club was formed a few months ago. Emphasis is on family participation and more than 70 parents and children have attended some of the weekend outings.

Meetings are held each third Thursday of the month at the CRA Clubhouse, Gillespie Field. Next one will start at 7 p.m. on Oct. 20.

For information about the club call Harold Perkins, ext. 456, Plant 1; or Ralph East, ext. 753, Plant 2.

Aeromodelers Plan Free Flight Event At Clairemont Site

Aeromodelers at Convair SD are getting their craft in top shape for their annual free flight contest at the end of this month, Sunday (Oct. 30), at the Clairemont Mesa Blvd. site, west of Astronautics plant.

Spectators are invited to view competition due to start at 8 a.m. and continue throughout the day until 2 p.m., said Vic Korksi, CRA commissioner, coordinating the meet.

High times established in three adult events, (½A, A, and B) and two junior classes will be rewarded with CRA awards going to first three places. Entry fee for each contestant is $1, said Gary Witt, contest director.

The Convair meet is sanctioned by the Academy of Model Aeronautics.

Sign-ups Sought For Bloodmobile

Cards will be in the hands of Convair SD department heads next Monday (Oct. 17) for sign-ups to the next SD bloodmobile.

Engineering and experimental departments in Bldgs. 5 and 51 on first shift at Plant 1 will be solicited for the Oct. 27 bloodmobile, said Ken Wulfemeyer of employee services.

Since no blood collection was held last month, he reminded, all donors are urged to boost Convair SD's credit at the San Diego Blood Bank at the coming bloodmobile visit.

Archers Plan Films At Oct. 20 Session

Movies of archery shoots in the San Diego area will be shown at the Oct. 20 meeting of the Convair SD Archery Club, said Al Phipps, club spokesman.

The 7:30 p.m. meeting will be held in the CRA Clubhouse, Pacific Hwy., with general business preceding the film showing. Refreshments will be served.

Maxfield Wins Match Play Title With 1 up Victory on 19th Hole

Two down with two holes to play, C. W. "Curly" Maxfield (Dept. 120) turned in a blazing finish to earn a 1 up victory on the 19th hole and win the Annual CRA Match Play Championship at Circle R.

Victim of the whirlwind wind-up was M. W. "Bill" Glithero (Dept. 192) who had stroked his steady game into a 2 up advantage after 16 holes.

Maxfield won the 17th hole, then really brought pressure to bear on 18 with a fine 8 iron that landed within two feet of the pin. He dropped the putt for a bird, sending the match to the 19th hole.

Maxfield promptly knocked his tee shot out of bounds, Glithero hit a long, straight drive. After a good second drive, Maxfield hit his 9 iron next to the pin and sank the putt. Glithero's approach was long. It took him three more strokes to get down, giving Maxfield the championship.

Trophies will be awarded by CRA to all flight winners and runners-up in the 54-hole match play championship.

In the first flight Walter Rye (Dept. 100) bested R. Gregorich (Dept. 192). Second flight: Jim Flitter (Dept. 15), Jake Moore (Dept. 8). Third: Frank Kelly (Dept. 6), Jack Meacham (Dept. 15). Fourth: J. W. Fitzgerald (Dept. 6), Carl Bieberdorf (Dept. 6).

Fifth flight: Bill Carr (Dept. 190), Roy Sommers (Dept. 15). Sixth: Gene Balcewicz (Dept. 8), Pete Caltagirone (Dept. 180). Seventh: Jake Sinnott (Dept. 7), Curtis May (Dept. 180). Eighth: V. Mavrinac (Dept. 401), and A. Johnson (Dept. 6).

'Ghost Walk' Dance Set by Hoedowners

Highlight of Convair SD square dancing activities this month will be the eleventh annual "Ghost Walk" starting at 8 p.m., Saturday (Oct. 22) at the American Legion Hall, 4061 Fairmount Ave.

Hoedowners are promised plenty of fun, prizes and surprises, according to Maury Scholz, CRA commissioner. Costumes will be optional for the Halloween dance.

On the following Saturday (Oct. 29) SD square dancers will attend an "all-Convair" affair hosted by Astronautics dancers in the Astro cafeteria. Groups from Convair Pomona and Palmdale have also been invited.

Convair SD persons who have had some square dancing experience are invited to join the beginners class which meets weekly on Wednesday evenings at 8 in the Uptown Hall, 30th and Meade.

Schedule Changed For Hunter Safety

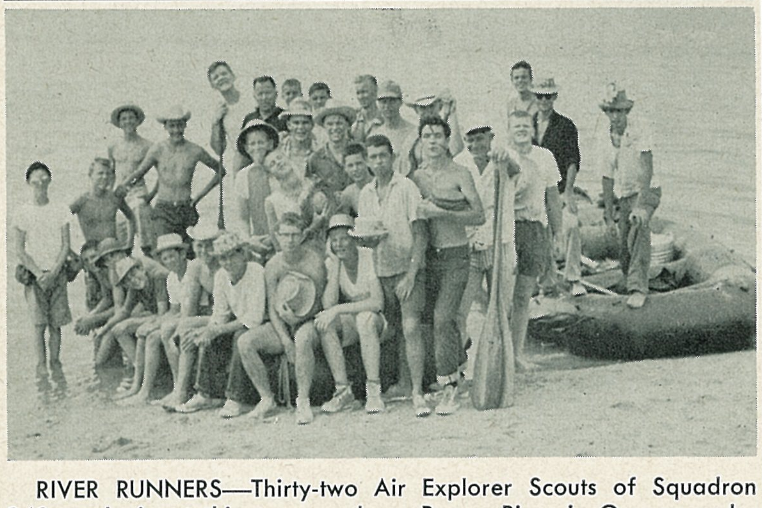
CRA's "crash" program of hunter safety classes which have been held three times a week is being slowed down to three-consecutive-Saturdays schedule.

More than 80 SD and Astro youngsters have completed the course in the past two months and reservations are now being accepted for the Saturday classes. They will start at 9 a.m. at the CRA Range, Gillespie Field. Reservations can be made by calling Arnold Schrock, ext. 665 or 1174, SD Plant 1, or BR-7-4958.

SD Riders Invited On Arizona Outing

Members of Convair SD Riding Club have been invited to participate in the Pima County Sheriff's Posse Trail Ride Oct. 26 through 29, said L. W. Barbour, club spokesman.

The 100-plus-mile ride will start in Tucson, Ariz., and wind through the Coronado National Forest, San Pedro River Valley to the Oracle Ranger Station in the northern part of the state. For additional information contact Barbour, ext. 1174, Plant 1.



RIVER RUNNERS—Thirty-two Air Explorer Scouts of Squadron 340 made jaunt this summer down Rogue River in Oregon under sponsorship of Convair SD Management Club and Convair Recreation Association. Rubber-raft ride was completed without mishap under guidance of four adult advisers.

Judo Instruction Starts Tomorrow

Judo workouts and instruction, sponsored by CRA, will be resumed tomorrow (Oct. 13) in the CRA Clubhouse on Pacific Hwy., Pete Beyrer of the CRA office reports.

Weekly Thursday classes will be held between 6 and 7:30 p.m. Fundamentals will be stressed at the low cost of 25¢ per person. Experienced Convair instructors Tony Silva and Mary Gengler will be on hand. Children taking the course should be at least six years old.

CRA Calendar

(Convair SD Recreation Association has some 40 activities in operation. For information on SD sports, call CRA headquarters, ext. 1245, Plant 1.)

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AEROMODELERS — Annual free flight gas contest Oct. 30, 8 a.m.-2 p.m., Clairemont Mesa Blvd. site.

ARCHERY — Meeting Oct. 20, 7:30 p.m., CRA Clubhouse, Pacific Hwy.

BALLROOM DANCING—Fall classes for adults and teen-agers now under way. Call CRA office, ext. 1245, Plant 1.

BRIDGE CLUB — Next session Tuesday (Oct. 18), 7:30 p.m., Hotel Barcelona, 326 Juniper St.

COIN CLUB — Meeting Oct. 18, 7:30 p.m., Hearing Aid Society Bldg., 3843 Herbert St.

DELTA DIVERS — Meeting Tuesday (Oct. 25), 7:30 p.m., Balboa Park Conference Bldg.

FENCING — Workouts and instruction every Friday, 7:30-10 p.m., YWCA, 10th and C Sts.

GARDEN CLUB — Meeting tonight (Oct. 12), 7:30 p.m., Floral Assoc. Bldg., Balboa Park. Annual Fall Flower Show Oct. 30.

JUDO—Workouts and instruction every Thursday starting Oct. 13 in CRA Clubhouse, Pacific Hwy., 6 to 7:30 p.m.

MOVIES — Reduced-price movies Fridays, Saturdays, Sundays at Adams Theater, 3325 Adams Ave. Adults: 50¢; children, under 12, free, if accompanied by adult.

PISTOL CLUB — Next regular monthly shoot Sunday (Oct. 23), 9:30 a.m., San Diego Police Pistol Range.

RADIO CLUB — Next meeting tomorrow (Oct. 13), 7:30 p.m., Harbor Drive club headquarters. Tom Hemphill, guest speaker.

ROAD RUNNERS — Weekend trip to Live Oaks County Park, Oct. 14-16. Meeting Oct. 20, 7 p.m., CRA Clubhouse, Gillespie Field.

ROLLER SKATING — Convair skate night Monday (Oct. 17), 6:30-9:30 p.m., Skateland, Front and G Sts. Tickets available at SD employee services.

SQUARE DANCING — Halloween dance, "Ghost Walk," Oct. 22, 8 p.m., American Legion Hall, 4061 Fairmont Ave. All-Convair square dance Oct. 29, Astro cafeteria.

Electrical Society To Sponsor Display Of Space Equipment

Fifty booths and a minimum attendance of 3,000 are predicted for the Fourth Annual Display of the Aircraft Electrical Society of San Diego which will be held Oct. 20-21 in the Balboa Park Electric Bldg.

Eight Convair SD Dept. 6 men are helping stage the event which will feature electrical and electronic equipment for spacecraft, aircraft and missiles. Display director is T. W. Ochodnicky; other Convair men assisting are E. F. Kotnik, Jack Frost, Elmer Gauthier, Jim Carlson, John Polhamus, Gary Rott and Don Johnson.

The annual display is described as a trade show rather than a technical convention. Its purpose is to allow manufacturers of electrical and electronic equipment and components to efficiently present their products to local industry. Show hours will be 4 to 10 p.m. Thursday and Friday.

Sneak Preview Set For Coin Meeting

A preview of the exhibit to be entered by Convair SD coin collectors in the coming state convention will be one of the features at the Oct. 18 meeting of the CRA group, 7:30 p.m., Hearing Aid Society Bldg., 3843 Herbert St.

Tying in with the California State Numismatic Association convention Oct. 27-30 at U.S. Grant Hotel, Lionel Panosh, past president of American Numismatic Association, will outline origin and purpose of the state organization.

Bob McCracken, president of the Convair SD group, promised members a surprise non-partisan campaign demonstration marking the nearing presidential election. Also on the Tuesday night agenda will be a coin auction, door prize drawing, and refreshments.

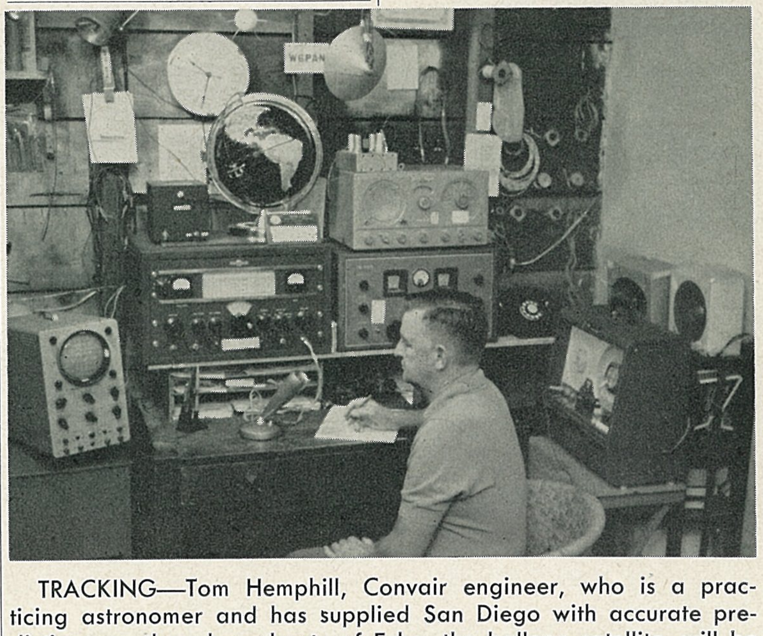
'RADIO TRACKING' HEMPHILL'S TOPIC AT CLUB MEETING

Tom Hemphill, a Convair SD engineer who has become an expert in knowing the whereabouts of man-made satellites, will be guest speaker tomorrow (Oct. 13) at a meeting of the CRA Radio Club.

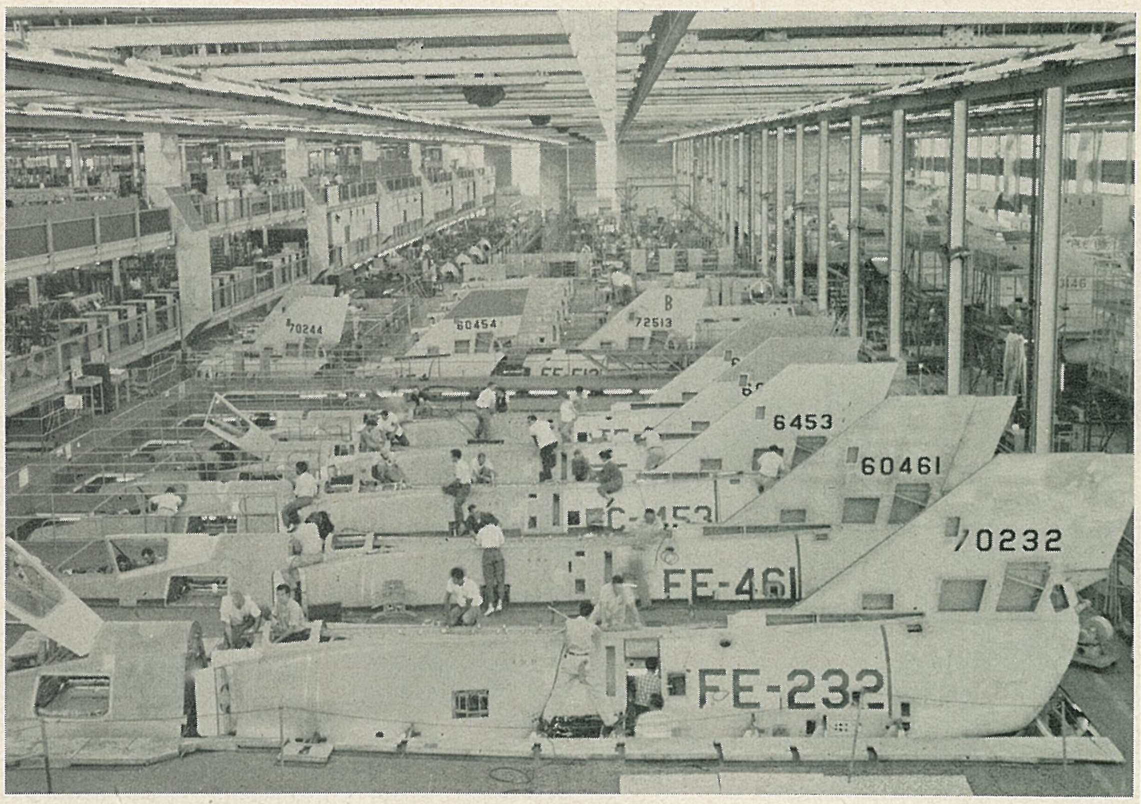
Hemphill will discuss "Radio Tracking" at the 7:30 p.m. session in the Harbor Drive headquarters. The public is invited.

He will describe how radio signals can be used not only as a listening device but also for tracking purposes. "This is a relatively new concept and one of exceptional interest," he said last week.

Hemphill will use slides and tapes during the presentation. Hemphill perhaps is best known for supplying the public with predictions as to where Echo, the balloon satellite, could be seen.



TRACKING—Tom Hemphill, Convair engineer, who is a practicing astronomer and has supplied San Diego with accurate predictions on the whereabouts of Echo, the balloon satellite, will be guest speaker at a meeting of Convair SD Radio Club tomorrow (Oct. 13) evening at 7:30 at club's Harbor Drive headquarters. Guests are invited.



BACK TOGETHER—Photo, which was snapped looking south in Bldg. 2 at Convair SD plant 2, shows "test to tactical" planes in fuselage mate area. Modified F-106 interceptors will match combat capability of last production plane.

Convair-Made Movies Win National Awards

Three motion pictures, compiled by Convair SD motion picture section, garnered two firsts and an honorable mention in a nation-wide contest last month, according to word received by W. G. Kemmer, Dept. 98-8 supervisor.

Six entries were submitted for the first time in Annual Industrial Film Awards competition of "Industrial Photography," publication for in-plant technicians in business, industry, government, and science.

Three of the six were judged top films with one, a special award winner in a class of its own. "Make It Move," a 10-minute film showing different uses for company motion pictures—such as briefing, training, sales promotion, public relations—was put together entirely from stock footage in the SD motion picture section. It won a special award for promotion of industrial photography.

"Time Will Tell," a story of NORAD and ADC missions, was based on film taken prior to and during the record-setting flight of the F-106 at Palmdale last Dec. 15. It won first for public relations film in the Sales, Advertising, and Public Relations division.

Honorable mention went to "F-106B Spin Test," in Research and Development section, photographed at Edwards AFB during routine testing of Convair's jet interceptor.

All films were 16 mm with color and sound. R. M. Hall, motion picture section supervisor, directed production of both top-award films.

The entire staff of SD motion picture cameramen had a part in taking the shots used for "Make It Move." Editor was W. A. Jenevein and writer, Fenton E. Calhoun. Editor for "Time Will Tell" was Arthur K. Pabst with R. E. Church, cameraman. J. F. Schaaf directed and photographed "F-106B Spin Test"; R. T. Sperry was writer; and Pabst, editor.



CLEAN CUT—"Test to tactical" modification continues at Convair SD Plant 2. First three of modified F-106s are already in primary assembly. Photo shows "tear down" area where fuselages are de-mated and parts and furnishings removed for change and modification.

'Test to Tact' F-106s Joining Assembly Line

Convair San Diego's last F-106 production aircraft is now in final assembly in Bldg. 2 at Plant 2 and first planes undergoing "test to tactical" modification are following it down the line.

The last F-106 production plane is "flying" an American flag as it moves from station to station.

The Air Force at Palmdale is scheduled to take delivery of the final production interceptor in January of 1961. First F-106 was accepted by the Air Force in December of 1956.

Moving down the Bldg. 2 line are the first planes in the "test to tactical" program.

The total "test to tactical" program involves 35 F-106As and F-106Bs. Schedules call for the Air Force to accept the first modified interceptor in January of 1961 and the last in June of the same year.

Twenty-eight of the planes entering the program are already at Convair San Diego, the remaining seven will be delivered to Convair during the next two months, according to W. J. Dewey, F-106 project administrator.

"Test to tactical" interceptors will match the combat capability of the last production plane. Airplanes to be modified have been used in various test programs by Convair, Hughes Aircraft Company (which produces the MA-1 system), National Advisory Committee for Aeronautics, and the Air Force.

Also being conducted now by Convair and the Air Force is a fatigue program designed to demonstrate that the F-106 has "at least 4,000 flight hours."

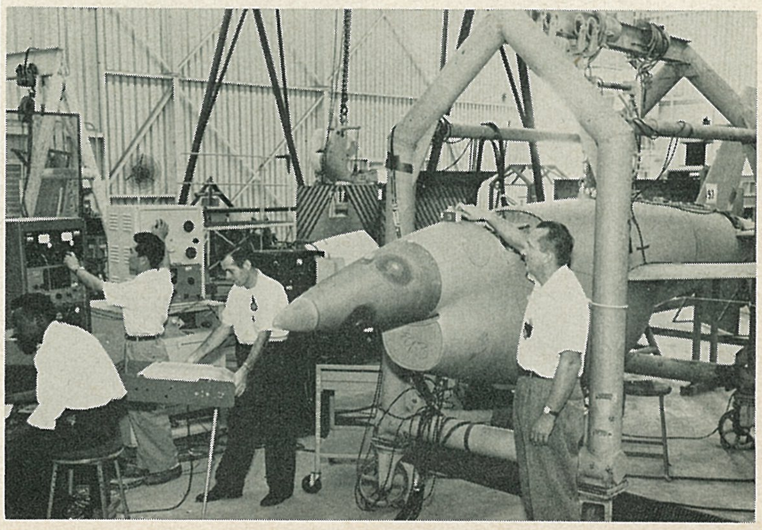
The program consists of four phases.

In the first two phases Convair is responsible for development of loads spectra and theoretical fatigue analysis as well as fatigue testing of critical components, according to W. J. Daniel, assistant project engineer.

The third involves a static article (a non-flying but complete plane with fuselage, wing and tail) which was scheduled for delivery this week to Wright-Patterson static test lab in Dayton, Ohio. There, testing of the full-scale article will be accomplished.

In the fourth phase a flight test article, now being readied by the SD experimental factory, will be put through "gust and landing gear load tests." Modification will be completed and testing started at Holloman AFB about the 15th of January.

Convair men involved in the test programs include L. L. Dress of structures and stress analysis; L. G. Barbee, systems dynamics; E. Schiff of structures lab; and A. R. Marshall, flight test group engineer.



DRONE SHAKING—Systems dynamics test engineers at Convair SD prepare to vibrate Ryan's Firebee drone in data acquisition tests in SD dynamics lab. From left are Robert Turner, George Miyashiro, Harold Keaton, Gene Barbic.

Firebee Drone Gets Severe Case of Shakes During Vibrating Tests at SD For Ryan

Test engineers in Convair San Diego's systems dynamics laboratory are vibrating an advanced target drone specimen under a contract with Ryan Aeronautical Co.

A Firebee drone, now under production at Ryan for the Air Force, is undergoing aeroelastic tests at SD Plant 1 for data acquisition. Information gathered by test engineers on a Datarite oscillograph and a dual beam oscilloscope while the drone is vibrated at different frequencies will be compared with calculated data.

A. D. MacLellan and R. A. Browne of systems dynamics technical group have the task of compiling calculated data from information furnished by Ryan. Ground vibration tests are being conducted by B. J. Campbell's systems dynamics test operations group with Gene Barbic in direct charge.

Instruments pick up reaction from 50 points on the over 20-ft.-long drone. Electric vibrators put the test specimen into motion, thereby exciting all the vibratory modes associated with the bird in flight.

The project is due to be completed within the next few weeks.

Hospital Expansion Progresses, Aided by Gifts From SD, Astro

Contributions of Convair San Diego and Astronautics people to the Tri-Hospital Building Fund are helping finance new facilities under construction at Mercy and Sharp Hospitals.

Scripps Memorial Hospital, third to benefit from Tri-Hospital funds, will receive its share when ground is broken for a new 250-bed institution on Torrey Pines Mesa early next year.

At Mercy Hospital site a new outpatient clinic is being built to replace Guadalupe Clinic which will be removed to make way for a freeway. The new clinic will have complete facilities for medical, surgical, orthopedic, eye-ear-nose and throat, maternity and child care, and dentistry.

A new 60-bed maternity wing is nearing completion at Sharp Memorial Community Hospital with tentative opening set for mid-December. The wing, called a complete hospital in itself, will have 92 bassinets, 6 delivery rooms, 2 major surgeries, 13 labor beds, and a 6-bed recovery room.

The campaign, which set its goal at $10,542,514, is now at the halfway mark.

Double Pod B-58 To Fly in Oct.

Shakedown flights on B-58 No. 4—recently modified for two-component pod testing—are expected "sometime in October."

No. 4 will be used in extensive testing at Kirtland AFB, following shakedown and captive pod-flights from Convair FW.

Captive flights from Convair FW will be made to record pressure data characteristics of the TCP, Team Captain R. P. Andrews pointed out.

"On these flights we'll drop the lower component from the upper component in one test, and the upper pod from the Hustler in another," he said.

Dropping of both lower and upper components on a single mission will be done from Kirtland later on.

Preliminary drops from Convair FW will be made over regularly scheduled sites at Tonopah Test Range in Nevada and White Sands Missile Range in New Mexico.

Pod-drop procedures and flight patterns were firmed up by a team of Convair FW engineers on a recent three-day junket to test facilities.

Jim Graham, team captain; Earl Guthrie, flight captain of No. 4; and R. R. Smith and C. V. Petersen, flight test engineers, made the trip.

Hundreds Sign up For Plant Courses

Nearly 450 Convair people recently signed for college courses offered in-plant at FW.

About 190 signed up for 18 management courses offered by TCU and Convair FW Management Club.

A total of 250 registered for courses in the SMU graduate engineering program, now offering 14 classes in-plant.

Eight advanced engineering degrees were earned by Convair people Aug. 26, running the total of such degrees awarded this year to 49.



REFRESHING—"Miss Atlas Missile" at Altus AFB, Okla., is Tamara Long of nearby Lone Wolf, town near future "hard" Atlas site in Oklahoma. Tamara won honor over select field of beauties representing other locations. She is said to be first "Miss Atlas Missile" named at any future SAC base.

Alaska Airlines Orders 84-Passenger Version of Jet 880-M

Purchase of a Convair 880-M, newest version of Convair's jet transports, by Alaska Airlines was announced this week by J. V. Naish, president of Convair, and Charles F. Willis Jr., president of Alaska Airlines.

The new airliner, scheduled for April, 1961, delivery, will be used on routes between Seattle, Wash., Fairbanks and Anchorage, Alaska.

The 84-passenger compartment of the version ordered by Alaska Airlines will be equipped with a 12-place forward lounge and a main cabin of 18 rows of two-abreast seating. There will be a removable coat closet divider at mid-point in the main cabin. The plane will be equipped with two forward buffets and one aft buffet.

Interior will be in shades of coral and gray against an off-white background with gold accents used to carry out a "gold nugget" theme. Scenes of Alaska will be displayed on bulkheads.

A separate contract between Alaska Airlines and General Electric Co. covers purchase of CJ-805-3B jet engines for the 880-M.

First three 880-Ms are now on production line at Convair SD.

C-V CONVAIR

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SAN DIEGO, POMONA, ANTELOPE VALLEY, CALIF. ASTRONAUTICS OFF-SITE BASES, FORT WORTH, TEX.



IDEA AWARDS—First group of cost cutters who qualified for either cuff link sets or lapel pins relax while D. L. Johnson (standing left), SD manager of systems and procedures, and C. E. Gross, systems and procedures supervisor, distribute new ES and CIP "bonus awards." From left: A. L. Jones (Dept. 180), H. H. Hurley (Dept. 197), Johnson, C. A. Lynch (Dept. 34), C. T. Foster (Dept. 188), Gross, R. F. Mellon (Dept. 44).

Cutting Costs On Jetliners SD's No. 1 Job

Cost reduction is Convair San Diego's number one problem and number one job, along with building quality products on schedule, Robert C. Loomis, SD operating division manager, said this week.

"And the responsibility is not solely that of supervision. It rests squarely on each and every individual who works for Convair. We are building good airplanes and we are going to meet our commitments. But we MUST operate within drastically reduced costs," he explained. "It is imperative that we tighten up our belts and adopt a new attitude of strict frugality.

"The facts of life are that our airplanes—the jet transports—are costing us a great deal more to build than they should. We must bring down these expenses substantially."

Loomis said that a "long, long look" is being taken at the jet airliner program with a view to slicing great sums of money from the cost of manufacture, without in the slightest affecting quality.

"It can be done, and we are going to do it," he continued.

"We are taking giant steps in tightening our control system. Among the immediate objectives are drastic reduction in engineering changes, concentration upon key shortages, improved sequencing, streamlining both engineering release and manufacturing control and material control systems.

"These steps, and others, management can take. But to be really effective they must be met by full cooperation of all employees and by every member of the team 'filling the unforgiving minute' with 'sixty seconds worth of distance run.'

"There is not a single employee who could not—if he set his mind to it—recognize many ways in which he can save the company money. Even as minor a matter as a few rivets used instead of dropped and lost can add up to real money, if multiplied many times. Or care with perishable tools . . . or care with blueprints . . . or care to see that his time is fully and gainfully employed."

Loomis said that operating economically is a "frame of mind" and must be acquired.

"We must learn to THINK cost reduction, practice it, and make a determined effort in every action we take during the day to follow the most economical route."

Flow of Cost Cutting Ideas Spurts at SD

More and more persons at Convair San Diego are putting on their "thinking caps," as evidenced by a marked jump in Employee Suggestions submitted during the last six weeks.

SD's cost reduction group reports that ESs have averaged almost 100 per week during the last month-and-a-half, a significant increase over comparable periods this year.

"We are defintely encouraged by the trend," said D. L. Johnson, manager of systems and procedures. "Nine out of 10 ESs are coming from Plant 1 people. We hope this idea input will continue and spread a contagious atmosphere throughout the plant.

"ES and CIP savings can mount rapidly, benefiting both the company and the employee," Johnson added, citing savings totals realized so far this year.

Both the ES and CIP cost-cutting programs have saved the company $1,125,898 so far during 1960. Of this total, 568 ESs have been approved for a savings of $297,728; 141 CIPs approved have accounted for $828,170. Hourly people have pocketed more than $33,387 in award money this year.

In addition to cash awards in the ES program, and the President's Award which is given annually to the outstanding CIP submitter, special "bonuses" are now being given. They are in the form of jewelry prizes.

Twenty-three Convair SD persons have qualified for the special awards so far this year and will receive them during the next month, according to C. E. Gross, systems and procedures supervisor.

Following are ground rules for the jewelry prizes:

Sterling lapel pins are being given each eligible suggester at Convair SD for his or her first ES or CIP installed which was submitted on or after Aug. 1.

Cuff links and tie clasp sets or pendants (for the ladies) are going to submitters of ESs that attain cumulative savings at Convair SD of $10,000 or CIPs that total $25,000 in company savings. They are being totaled from a period retroactive to Jan. 1, 1960.

ES submitters (and their savings) who have qualified for the cuff link sets are A. L. Jones (Dept. 180), $50,999; C. D. Lane (Dept. 101) and R. L. Rehard (Dept. 205), $70,090 (joint submittal).

ES lapel pin winners are C. T. Foster (Dept. 188), H. D. Gidney (Dept. 249), O. T. Meeks (Dept. 223), N. D. McFarland (Dept. 25), M. Petrovich (Dept. 129), and H. I. Somers (Dept. 25).

(Continued on Page 2)

Salvage Yard at SD To Alternate Sats.

Employees' salvage store at Convair SD will now be open for sales every other Saturday, instead of each week, announced R. H. Lange, material sales supervisor.

Operating hours during the Saturday dates have been extended from 7:30 a.m. to noon. Next two dates the store (west of Gate 5 at Plant 1) will be open are Oct. 29 and Nov. 12.

A notice indicating the yard's schedule will appear in each edition of Convairiety for the convenience of SD employees.

Roundup Held On Con-Trib Memberships

Annual Employees' Con-Trib-Club membership roundup is under way this week at Convair San Diego aimed at increasing participation to at least 90 per cent of plant population.

Sign-up cards are now being channeled through supervision for distribution to all nonmembers. All that is necessary is to sign and designate the amount of deduction desired.

At the present time only 14 per cent or 2,500 persons at Convair SD are nonmembers. "We feel that 90 per cent is a realistic goal and we hope that those who can afford to contribute will do so," said Keith Sears, Employees' Con-Trib-Club Committee secretary and general manager.

"It is especially hoped that those who have not yet had an opportunity to join Con-Trib-Club will do so when they are contacted. Also, former members, who have been forced to drop their membership at one time or another, may wish to reconsider," Sears added.

Pointed out by Sears was the fact that the needs of local welfare organizations are steadily increasing because of local economic conditions, causing a greater demand than ever for each Con-Trib-Club dollar.

"The support of every person is needed to help the less fortunate and the community is de-

(Continued on Page 2)



CHANGE REVIEW—Now reviewing proposed major engineering changes of jet transport program at Convair SD is Change Review Board, from left, F. S. Chambers, Lewis Grant, L. J. Bordelon, R. R. Hoover, reporting to SD Manager R. C. Loomis (center).

New Screening System To Cut Design Changes

A new system of improved control over all major engineering design changes affecting Convair's jet transports is now in effect at Convair San Diego, announced R. C. Loomis, Convair vice president and SD manager.

It goes into action on all changes affecting safety, engineering or manufacturing schedules, or those costing over $1,000 per plane (or $10,000 per aircraft version).

"By competent evaluation of the merit of each proposed change and prompt acceptance or rejection, we will be able to expedite final release of complete engineering design changes," explained Loomis. "Thus, we will avoid excessive costs resulting from premature procurement, tool manufacturing, and preliminary fabrication."

(Continued on Page 2)

Closely related to the change control realignment, now in effect, is a streamlined engineering design release system in final stages of formulation and due for activation within the near future.

It is designed to expedite flow of engineering designs and related data through the final release phase.

When it is initiated, the revised system is expected to greatly reduce costs and eliminate duplication of effort before final design release.

Prop. No. 1 (Water Bonds) Favored; No. 15 (Change in Senate) Opposed

With national and state elections less than two weeks away, employee attention is being directed to two California Propositions which will be on the ballot.

One is vital to the state's continued development; and the other would alter the state's traditional political institutions.

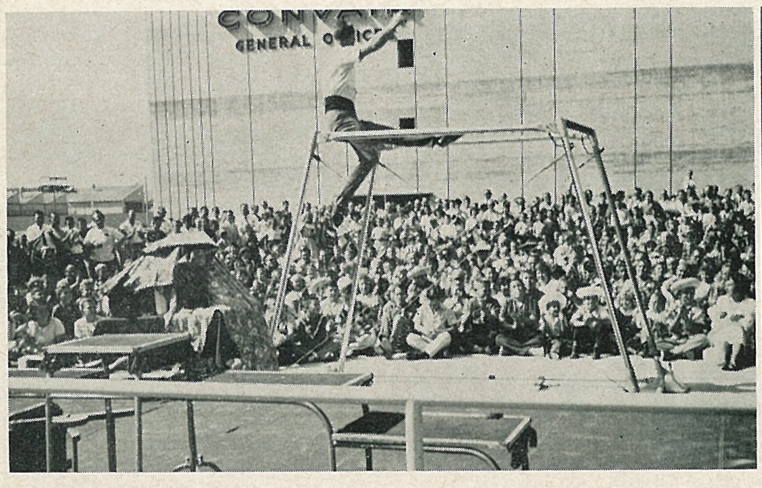
Proposition No. 1 involves voting bonds to finance a network of dams and reservoirs to bring surplus Feather River water to the rescue of Central and Southern California.

Proposition No. 15 involves reapportioning the State Senate in a manner that abandons the traditional "checks and balances" system.

State leaders have pointed out that if the state is to continue to offer greater job and living opportunities, water must be pro-

(Continued on Page 2)

Proposition No. 1 has been widely supported by political, union and business leaders, who also have opposed No. 15. John Collins, directing business representative, International Association of Machinists, Districk Lodge 50, reports that the IAM's "Machinists Non-Partisan Political League" supports No. 1 and opposes No. 15.



FULL HOUSE—Fathers and kids pack cafeteria patio to see entertainment which preceded tour of 880 flight line. An estimated 1,350 dads and children attended affair sponsored by Convair SD Management Club. Afternoon agenda included lunch in cafeteria, entertainment, raffle, tour of flight line, as well as special 880 "open house."

Log Book Entries

Service Emblems

SAN DIEGO

Service emblems due during the period Oct. 16 through Oct. 31.

Twenty-five-year: Dept. 6-53, F. H. Sharp; Dept. 95-3, W. W. Whittier; Dept. 129, N. T. Maisheff; Dept. 146, H. K. Parsons.

Twenty-year: Dept. 1-61, C. L. Meador; Dept. 6, James Barron, W. F. Brown, Adolph Burstein, R. J. Chillo, R. M. Dunbar, C. L. Jackson, H. F. King, F. A. Pokorny, J. T. Rudis, G. E. Trimlett, P. F. White, S. T. Wood; Dept. 31, H. D. Heyenga, William Lingelbach, W. E. Ritter.

Dept. 115, P. M. Castillo; Dept. 140, R. L. Robinson; Dept. 180, H. L. Smith; Dept. 188, S. C. Barone; Dept. 205, W. W. McDaniel; Dept. 232, E. D. Fountain; Dept. 292, T. E. Morris; Dept. 400, E. L. McCabe, E. B. Reed; Dept. 401, R. W. Fitzgerald, W. J. Loughlin, B. J. Smigielski.

Fifteen-year: Dept. 91, B. H. Wilbur; Dept. 97, J. G. Bentson; Dept. 102, Lawrence Neal; Dept. 123, E. H. Longpre, W. M. Owen; Dept. 133, V. E. Rosado; Dept. 148, F. B. Fain; Dept. 171, M. J. Gontesky; Dept. 188, R. J. McMahon; Dept. 205, J. C. Rothwell; Dept. 216, L. M. Shearer; Dept. 288, L. E. Rulik Jr.; Dept. 400, J. E. Cooper, G. W. Durkee, T. B. Floyd.

Ten-year: Dept. 1-23, Dorothy R. Meade; Dept. 6, R. M. Bloom, J. F. Brady Jr., O. B. Brower, R. M. Buss, F. M. Clausson, M. I. Edelstein, T. T. Holmes, B. F. Klick, E. W. Laski, J. C. McBratney, Takeshi Monji, D. F. Munger, J. P. Nelson, LaVerne Reid, W. A. Smith, V. V. Thomason, L. W. Wright.

Dept. 7, G. A. Gilliland, M. M. Gimenez, K. R. Keef, J. M. Lasley, J. R. Savage, M. L. Tucker, G. H. Wilber; Dept. 14, A. S. Borek, H. C. Butcher, T. R. Ferguson, P. E. O'Connell, Nicola Polvere; Dept. 15, G. W. Botten, T. O. McMaster; Dept. 25, A. G. Anderson, S. B. Dexter, J. W. Duncan, F. D. Froggatte, A. K. Jones, D. D. Martin, C. C. Moore, W. N. Thornton.

Dept. 31, F. C. Alvis, H. D. Booth, E. P. Hanson, G. W. Matthews, R. J. Surber; Dept. 34, W. R. Forsyth; Dept. 44, I. L. Darland, H. A. Nunn, T. C. Rosso; Dept. 69, Carl Hallquist; Dept. 90, W. R. Sloan; Dept. 93, L. H. Smith; Dept. 98, W. F. Carter, B. S. Levenson; Dept. 100, C. R. Bowman; Dept. 101, J. M. Cook, N. R. Garcia, D. F. Maddox, Gregorio Torrez Jr.

Dept. 102, A. Mosher, H. C. Pearson; Dept. 115, R. F. Jones, M. C. La Reau, E. L. Ludwick, R. F. Marsh, A. M. Todd; Dept. 120, J. A. Acosta, J. L. Nickel; Dept. 135, G. G. Hintz, R. N. Ybarra; Dept. 136, S. W. Bryan, F. G. Steele, F. L. Turner; Dept. 137, L. K. Martin; Dept. 138, R. M. Campa, V. V. DeMarce; Dept. 139, A. R. Rivera, P. C. Solscheid.

Dept. 142, Augustio Reyes; Dept. 144, F. T. Davis, A. Z. Whitney; Dept. 145, V. C. Lugo, Simon Mendez, D. L. Robbins, R. N. Williams; Dept. 146, C. R. Haddock; Dept. 148, J. G. Argus, T. B. Gerish, J. C. Turner; Dept. 149, A. B. Womack; Dept. 160, O. R. Reaves, C. W. Waits; Dept. 180, J. C. Floyd, N. C. Heinzmann, J. M. Hendricks, L. R. Hughes, H. E. Roth; Dept. 187, M. S. Arends, J. D. Hoffman.

Dept. 188, M. R. Axtell, D. E. Davis, J. P. Flaming, R. M. Handley, A. P. Hawes, B. W. Lowell, M. S. Magee, C. B. Mullins, M. F. Rosati; Dept. 192, E. C. Arnold, I. D. Culver, D. V. Dearmin, F. M. Heth, R. L. Jarrard, I. F. Kirk-Patrick, A. C. Larsen; Dept. 197, J. R. Dressler; Dept. 204, L. P. Gilmartin, Manuel Rios, William Wilson Jr.; Dept. 205, S. A. Read; Dept. 216, Esther R. Hostetler, E. T. Phillips; Dept. 218, L. L. Loya, Daniel Ostroger.

Dept. 223, Frank S. Rosa; Dept. 230, D. T. Lusky, L. M. Mitchell, D. H. Trout, H. G. Wands; Dept. 231, T. G. Hasting, H. E. Juarez, I. J. Watson; Dept. 232, Richard Niven, R. W. Wilson; Dept. 249, N. B. Byrd, M. F. Miskolczy, E. D. Mize, A. C. Rice; Dept. 266, W. E. Pope; Dept. 267, Frank Soria; Dept. 271, D. A. Chamberlain, J. M. Tuggle; Dept. 280, Mary S. Pitt; Dept. 288, A. H. Buntzen, P. J. Leonard, Glenna M. Noble; Dept. 292, B. C. Seiler, J. M. Thomas; Dept. 400, O. M. Carroll, J. A. Gamino, R. G. Gregor, O. L. Logan, D. S. Meredith; Dept. 401, Frank Asaro, W. V. Curran, A. H. Dass, J. J. Davis, T. B. Hudson, C. P. Roper, R. G. Sanders, J. J. Wiezorek.

PALMDALE

Fifteen-year: Dept. 321-1, T. F. Barnett.

Ten-year: Dept. 321-1, E. P. Speck; Dept. 329-6, P. A. Scott.

Promotions

SAN DIEGO

Promotions to or within supervision effective Oct. 10.

Dept. 6-35, Engineering: To hydrodynamics group engineer, W. B. Barkley.

Dept. 8-4, Systems & Procedures: To systems & procedures supervisor, J. J. Ireland.

Dept. 44-7, Material Control—Material Shortages: To material shortage general supervisor, J. C. Kice. To material shortage supervisor, R. J. Archibald, R. L. Kellogg.

Dept. 137, Jet Transport Aft Structure, Overwing Barrel, Lower Aft Canoe, Aft Tail: To foreman, F. J. Hammack. To asst. foreman, W. Vierra.

Dept. 138, Jet Transport Forward Fuselage Primary: To foreman, G. G. Baker.

Dept. 160, Jet Transport Final Assembly: To foreman, J. A. Contasti.

Dept. 292-2, Manufacturing Control, Plant 2: To M/C foreman, H. G. Barnes. To M/C asst. foreman, J. R. Zak.

Dept. 400-2, Tooling: To tool project engineer, O. L. Hunley.

PALMDALE

Dept. 324-8, Operations Services—Palmdale: To factory methods asst. supervisor, D. G. Goodland.

Personals

SAN DIEGO

I wish to thank all my Convair friends for their generosity and kind acts, including flowers, cards, and calls received while I was in the hospital and during my recuperation at home.

Mike Delva, Dept. 190-6.

* * *

We wish to convey our deepest appreciation to our Convair friends for the flowers and contributions to the Heart Fund in remembrance of our husband and father, Carl V. Hill Jr., Dept. 6-3.

Mrs. Marilyn Hill and sons, Bruce and Bill, and family.

* * *

We wish to thank our many friends in Convair SD Dept. 217, and Astronautics Depts. 335 and 337, for their kindness and sympathy following the death of our father.

G. L. Lombardi, Dept. 217
C. E. Quinton, Dept. 337

* * *

I wish to express my sincere appreciation for the many kind acts of sympathy, including flowers, cards, and donations to the Sunshine Home, at the death of my husband, Oscar W. Miller, Dept. 266.

Mrs. Letha M. Miller.

Retirements

SAN DIEGO

ASBURY — Edgar E., Dept. 400. Seniority date Oct. 6, 1950, retirement effective Oct. 7, 1960.

BLACK — Frank, Dept. 25. Seniority date, July 23, 1952, retirement effective Oct. 7, 1960.

GILLENWATER — Garland E., Dept. 403. Seniority date Feb. 16, 1951, retirement effective March 4, 1960.

MALLOY — James E., Dept. 400-1. Seniority date, Sept. 17, 1947, retirement effective Oct. 7, 1960.

OLSON — Walter A., Dept. 65-1. Seniority date, Jan. 22, 1942, retirement effective Oct. 7, 1960.

Deaths

SAN DIEGO

HALL — T. C., Dept. 401. Died Oct. 12. Survived by wife, Violet E.; son, Michael; daughter, Marie; and father, Lester Hall.

McGEHEE — George R., Dept. 93-2. Died Oct. 17. Survived by wife, Marjorie P.; five sons, Wayne, Maurice, Charles, Patrick, and Keith; a daughter, Mrs. Marian M. Rapp; two sisters; and eight grandchildren.

★ Convairiety ★

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SD Editorial Offices, Building 32, Plant 1, ext. 1071. Staff: Grayce Fath, Helen Pemberton, Fred Bettinger.

Astronautics Editorial Offices, Bldg. 8, Astro site, ext. 3322. Staff: Bryan Weickersheimmer, news editor; Willard Harwood.

FW Editorial Offices, Col. 73C, ext. 2961. Mailing address: Convairiety, Convair, Fort Worth, Texas. Telephone PErshing 8-7311. Staff: Dave Lewis, news editor; Louise Sutton, Mary Beck.

Pomona Editorial Offices, Room 106-D, Bldg. 1, ext. 6226/5279, mail zone 3-3. Staff: James Combs Jr., news editor; Dorothy Keller.

Palmdale news representative, CRA office, Room 36, Bldg. 301B, ext. 331, Palmdale facility. Holloman: O. J. Ancel, industrial relations, ext. 20, Holloman AFB.

No. 1 Favored, No. 15 Opposed

(Continued from Page 1)

vided for expanding industry, agriculture and homes. Colorado River water simply isn't enough to slake the thirsty areas of the state, and such proposals as salt water conversion are too costly. It will take at least ten years to deliver Feather River water to San Diego County, and the decision must be made now.

California's system of apportioning members of the State Legislature is based on the same system used by the Federal Government. The lower house (Assembly) by means of districting gives greater representation to the most populated areas. Apportionment of members of the upper house (Senate), however, disregards population and is on a territorial system. No county can have more than one senator and there cannot be more than three counties in a single senatorial district.

This is in line with the federal system whereby the heavily populated states have more Congressmen in the House of Representatives (New York State with 15 million population has 43, while Nevada, with 267,000 people has only one); but the states of lesser population have equal rights in the Senate (New York and Nevada are entitled to two senators each).

Proposition 15 would upset this "checks and balances" system, basing apportionment of senators on population, the same as in the Assembly.

Roundup Held On Con-Trib

(Continued from Page 1)

pending on Convair SD to again extend a generous helping hand as it has in the past," said Sears.

Last year SD Con-Trib distributed more than $200,000 to charity. Largest single sum, $175,000, went to the United Fund. Substantial contributions were also made to the National Foundation (polio) and the American Cancer Society.

Con-Trib also funded the manufacture of an artificial heart-lung machine after Convair SD engineers volunteered more than 1,700 manhours improving the design of the prototype.

In addition to community and national charities and welfare groups Con-Trib-Club takes care of its own. More than $31,000 was given to 165 needy Convair SD families through Emergency Aid.

Since Con-Trib-Club started in 1952 more than $2,240,000 has been given to charity and another $232,000 has gone to Convair families in distress.

Flow of Cost Cutting Ideas Spurts at SD

(Continued from Page 1)

In addition to earning cuff link sets the following CIP submitters are also eligible candidates for the 1960 President's Award.

They are G. R. Bailey (Dept. 197), $72,028; R. U. Brunner (Dept. 116), $27,448; G. A. Claudner (Dept. 292), $113,265; W. J. Durflinger (Dept. 31), $36,020; R. H. Geary (Dept. 15), $44,686; J. G. Hawkins (Dept. 6), $100,478; E. R. Hockert (Dept. 34), $52,682; H. H. Hurley (Dept. 197), $30,271; J. R. Mullican (Dept. 401), $48,836; J. R. Thompson (Dept. 400), $113,265; and A. J. Woods (Dept. 34), $113,265.

Lapel pins have been earned by three CIP submitters; C. A. Lynch (Dept. 34), and R. F. Mellon (Dept. 44), (joint award), and E. V. Torp (Dept. 91).

Births

SAN DIEGO

MONETTE—Daughter, Shelly Lynn, 7 lbs., 6 oz., born Sept. 25 to Mr. and Mrs. John L. Monette, Dept. 135.



HAPPY OCCASION—Lucille Metcalf, General Office Dept. 1-17, beams with pride as she receives congratulations on her 35th Convair anniversary from K. M. Smith (right), director of military relations, and J. T. Porterfield, assistant to director. She is second woman to achieve this distinction. Jane Dunn, SD cashier, celebrated her anniversary last year.

New Screening System To Cut Design Changes

(Continued from Page 1)

Three groups have been formed to implement and administer the change control system.

First, a Change Review Board screens all proposed major changes before their adoption to determine if the change is absolutely necessary. This group, which meets daily, is composed of administrators from engineering project office, contracts, customer service, controller's office—namely R. R. Hoover, F. S. Chambers, L. J. Bordelon, and Lewis Grant.

Responsibilities of the board are: to resolve need for all major requested changes from any source; and to determine acceptability, cost, effectiveness, and suitable schedule for each approved change.

It reports weekly to SD management: Loomis; Conrad Kunze, assistant manager-operations; T. J. Sullivan, assistant manager-contracts, customer service, and material; and W. W. Fox, chief engineer, to keep them fully advised of all change activities.

Approved changes are then released to the Change Implementation Board for action. These 10 men, representing all involved functions within the plant, coordinate and direct all departments and engineering design groups concerned in the change to expedite the incorporation.

Present membership of this body is Hoover; F. D. Applegate from transport project office; E. L. McDonald, contracts; W. H. Lindsay, customer service; C. E. LaSota, estimating; E. L. Williams, factory; E. V. Laird, manufacturing planning and methods; R. W. Dill, long range planning; W. M. Becker, manufacturing control; M. F. Moseley, material; and C. W. Stafford, tooling.

And, finally, a third newly-formed group in the change control reorganization, Production Proofing Group, executes proofing tasks as directed by the Change Implementation Board, to determine if the changed items will actually accomplish and satisfy requirements.

Group leader is Williams, superintendent of jet transport proofing and mockup. Other representatives are from design engineering, manufacturing control, material, quality control, and tooling.

(All minor changes resulting from design floor, liaison engineering, vendor, or subcontractor are processed by a Liaison Change Analysis Board carrying out the same control procedures.)

"In establishing rigid control of all changes for our jet transports, we are reducing time required for implementation by better organization," emphasized Loomis. "By close screening of proposals in advance and close surveillance during all steps up to final installation, we will be eliminating unnecessary expenditures and be able to devote our attention to expediting final incorporation of approved changes. In this way we can maintain our aircraft within the highest 'state of the art,' and keep our design integrity consistent at the least possible cost."

D. L. Johnson's systems and procedures department at Convair San Diego had responsibility for evolving an effective change control system. In direct charge of detailed preparation was C. B. Bjornson, under supervision of C. E. Gross.

Escondido Area Folk Invited to Dinner

Convair people, especially those living in the Escondido area, are invited to a Mexican dinner this Sunday (Oct. 30) at the Escondido Woman's Clubhouse, 1-6 p.m., sponsored by Club Latino.

Noe Perea of SD Dept. 146, president of the bi-lingual group active in furthering better Latin American relations, said that all receipts will be turned over to the Helpful Fund of the Escondido Times-Advocate. Tickets at $1.50 for adults, 75¢ for children, may be purchased at the door.

Club Latino, to which several Convair SD people belong, is also helping with the current letter exchange between school children of Mexico and the United States, as well as with other philanthropic projects on both sides of the border. Treasurer of the club is Joe Beltran, SD-Dept. 400.

Milling Appointed Accounting Manager

J. D. Milling was appointed manager of accounting, in charge of all general accounting and cost accounting activities at Convair San Diego, effective Oct. 17, announced R.C. Loomis, Convair vice president and SD manager.

He will head the combined functions, formerly Depts. 91 and 93, now known as accounting department, retaining the Dept. 91 designation.

Milling has been SD general accounting manager for seven years.

Bloodmobile Visit Delayed to Dec. 10

Date for the next bloodmobile visit at Convair San Diego has been postponed until Dec. 10.

Originally set for this week (Oct. 27), the blood collection for Convair SD credit at the San Diego Blood Bank has been rescheduled in December to coincide with the holiday season. Demand for blood withdrawals is normally heavier during this time, explained Ken Wulfemeyer of SD employee services.

The bloodmobile will be stationed in Bldg. 32 at Plant 1 and volunteer donors will be solicited from engineering personnel in Bldgs. 5 and 51.

F-106 Fuel System Cart 'Suffers' Weather Test

Rain, dust, wind, heat, and cold have battered a Convair-built fuel system test cart going to F-106 squadrons, to see how well it will stand up under extreme weather conditions in any part of the world.

Under an Air Force contract, Convair SD systems dynamics lab engineers started early this year to put the field cart through a series of environmental qualification checkouts. This month they will be winding up the last of the series of nine different tests in the program.

Production of 21 fuel system test carts is now in full swing at Convair SD Plant 2. Fifth one to go to AF squadrons in the United States was airlifted from San Diego this month on a C-123 to 11th FIS at Duluth, Minn.

When all data is collected on the cart's operation in the very worst climatic conditions, the information will be compared with that gathered under normal operating environment to see how much, if any, diversity there is, explained R. G. Wingfield, systems dynamics test engineer coordinating the test program. Many thousands of dollars worth of electrical and electronic instrumentation is contained within the 5,500-lb. cart. It must work accurately at all times in checking out the fuel systems of Convair-built interceptors when they're in the field.

Also, the steel frame and doors must withstand the most rugged storms and all gauges and components must be sealed to keep out sand and dust which might sift through to cause corrosion or binding of moving parts; or rain, which could short electrical circuits.

Only two of the tests did not concern weather conditions. In a mobility trial, the cart was taken by Convair truck to Brown Field and put through its paces for 100 miles at 20 mph over paved highways and graded gravel roads with plenty of turns and stops. The test cart is now at Plant 1 for acceleration load tests to prove out its airworthiness and how much gravity load it can stand in flight taxiing or emergency landing while airborne.

In the last eight months it has been heated for 50 hours by a battery of lamps to 212 degrees F. on the outside and 160 degrees inside; then dropped to a shivery low of minus 80 and operated at minus 65 degrees.

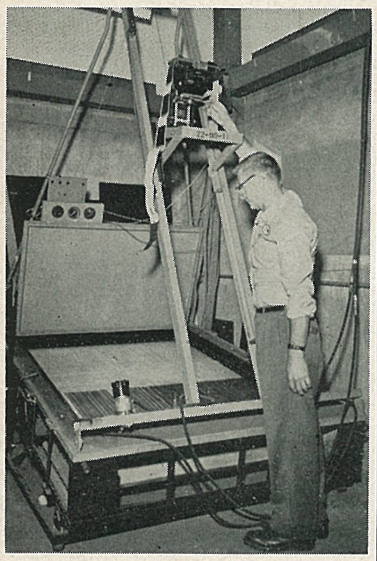
For 10 days it was subjected to a range of different temperature and humidity combinations, then doused in the salt spray booth for 50 hours.

Last month it went to the thermodynamics facility at the SD seaplane ramp to take a beating with sand and dust, rain and wind. Ground silica flour, with the same consistency of a combination of sand and dust, (4,800 pounds in all) was poured into a shaker on the large wind tube and blown through and over the defenseless cart. Residue was washed out of the air and dumped into San Diego Bay.

"Winds" up to 70 miles per hour tore at the cart and torrential rains of near 8 inches in two hours sprayed down on the cart.

Velocity pressure of wind used in ramp tests was measured on a manometer in the control building with a Polaroid camera taking shots of tubes filled with alcohol and green food coloring activated by instrumentation hookup at the cart. From the pictorial record wind velocities used at any given time are converted to mile-per-hour figures.

J. K. Stauffer, thermodynamics lab engineer, directed operations at the ramp test site. The complete program was performed under supervision of SD systems dynamics lab engineers of utilities and components groups at request of SD propulsion fluids group.



QUICK SHOT—G. A. Dewey, Dept. 31 instrumentation test technician, snaps Polaroid camera suspended high over manometer at SD seaplane ramp in checking velocity pressures of wind used in tests.

Film on Materials Research Reviewed

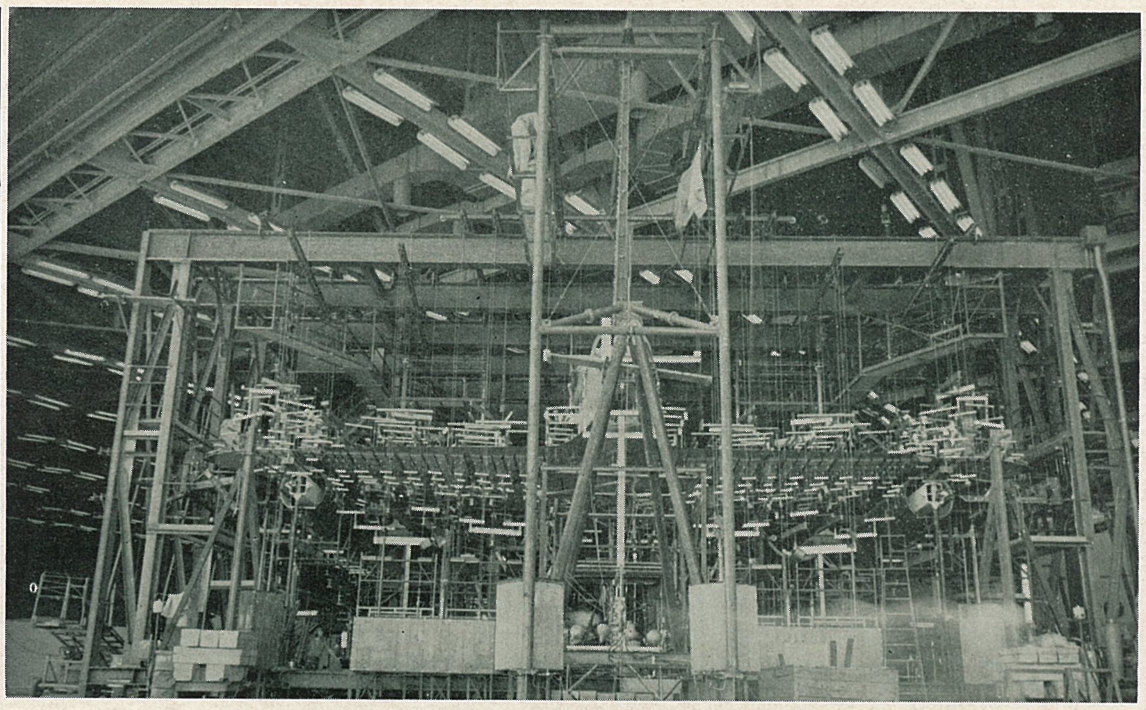
A film based on research work of Convair SD materials technical group during the last year was shown last week at the Hyper-Velocity Impact Symposium in Denver, Colo.

"Meteoroid Bumpers," compiled in cooperation with SD motion picture section, depicts different methods under study for protection of space vehicles from high-velocity particles. During tests conducted at SD thermodynamics lab facility, pellets (simulating actual meteoroids) were "defeated" at speeds up to Mach 20, near 15,000 miles per hour.

The film is being made available for showing to all interested groups.

SONIC BOOM TALKS CONTINUE

Malcolm Holloway, administrative assistant in FW manager's office, recently gave "Sonic Boom" talks to several civic groups in Crosbyton and Snyder, Tex.



MAZE—B-58 in "torture chamber" is scarcely discernable, obscured by intricate maze of "whiffle trees" which exert stress conditions, simulating extreme flight wear and tear.

Carswell B-58 Flies Mach 2 For 78 Minutes

A B-58 from Carswell AFB recently flew Mach 2 for 78 minutes, believed to be the longest double-sonic flight time logged in any one flight.

The historic dash was part of a three-hour flight, during which Hustler No. 34 went supersonic a total of 1 hour, 48 minutes.

(Average speed attained on the flight would have carried the Hustler approximately across the United States during that time.)

Most of the supersonic sprinting was done at an altitude of about 50,000 feet.

Piloting the plane was Lt. Col. J. F. Cotton, commander of the 6592nd Test Squadron, ARDC, and special assistant for test to 43rd Bomb Wing commander.

Maj. Andrew Rose Jr. was in second station, Capt. Samuel J. Doren in third station.

"During the Mach 2 flight, we flew 32 minutes north, refueled, then dashed southward at Mach 2 for 46 more minutes," Colonel Cotton said.

(Only longer sustained Mach 2 flight on record was turned in last year by a Convair B-58 crew which sped from Seattle to Dallas in 58.5 minutes.)

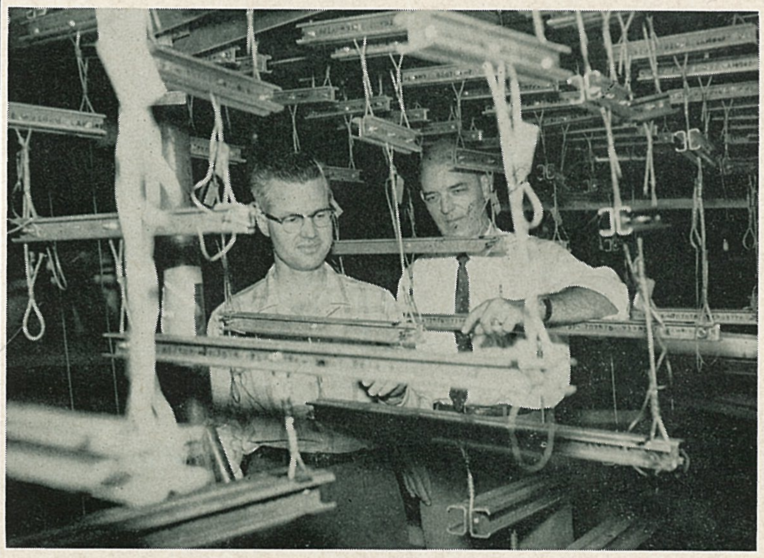
From second station, Major Rose said the Mach 2 flight was "smoother and quieter" than usual.

"We flew a good part of the way on autopilot," Colonel Cotton said. "The performance was excellent."

Colonel Cotton and crew came near to repeating their performance Oct. 17—again in Hustler No. 34.

On this flight, Colonel Cotton pushed the Hustler to Mach 2 for 31 minutes during daylight hours, and 26 minutes at night—possibly the longest Mach 2 night flight made to date.

The flight was over the Gulf, with Tampa the most eastern point reached.



UP CLOSE—Weldon Walker, left, and Glenn Robinson, Dept. 6-7 FW, check out "whiffle tree" devices used in stress tests on B-58 at Fort Worth.

B-58's Life Expectancy Forecast With 'Torture'

After five months in the "torture chamber," Hustler No. 29 is literally none the less for wear.

The chamber is a giant steel maze into which the B-58 was fitted last April for structural fatigue tests.

When the Hustler is removed from the test facility about mid-1961, it should substantiate the Hustler's life-time expectancy—structurally speaking.

Further, it will likely afford invaluable data for building supersonic bombers—and maybe transports—of tomorrow.

Fatigue tests are used to determine how many hours a plane can fly through various gust conditions and how many rough landings it can take before the plane's structure is weakened.

Engineers do this by applying hydraulic loading centers over every major part of the plane to simulate various stress conditions.

The odd-looking device used is a "whiffle tree"—sometimes known as a "whipple tree." A series of trees is attached to hydraulic cylinders, which are in turn linked with a nearby network of load programmers.

In simulating any one stress condition, different pressures are applied to different parts of the plane.

"We know from our flight data what stresses to expect from various gust conditions," says Glenn Robinson, test group engineer who has been with the test from the start.

"Thus we install our whiffle trees to 'prescribed' pressures at different points. For example, one type of gust condition may create a down load on one area and up load on another."

One section of the plane, the vertical tail, has already been "completely qualified."

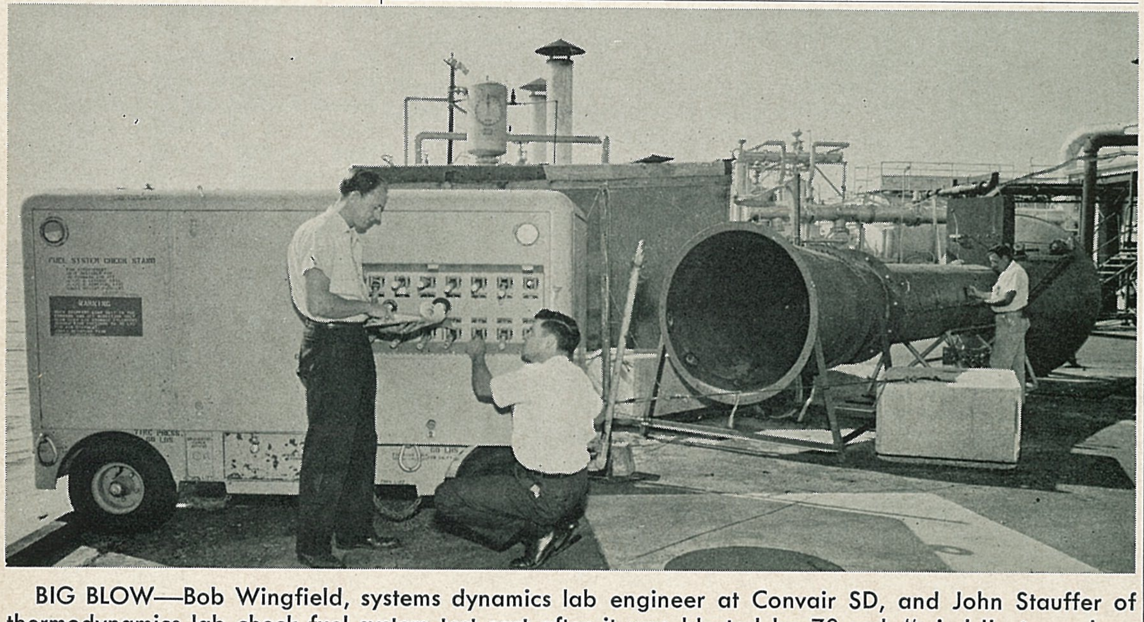
"In fact," Robinson said, "it was tested considerably beyond the expected service life, without failure."

No. 29, incidentally, seems destined for a unique fate. It likely will never fly.

Two months after coming off the assembly line and before being flown, No. 29 was stripped of its engines and subsystems in preparation for the test.

Before it emerges from the torture chamber, it will have "flown" more miles than any Hustler.

But these miles will have all been on the ground, right in Convair FW's development hangar.



BIG BLOW—Bob Wingfield, systems dynamics lab engineer at Convair SD, and John Stauffer of thermodynamics lab check fuel system test cart after it was blasted by 70-mph "winds" at seaplane ramp facility. In background, H. D. Prince (Dept. 31) makes adjustment on large wind tube.

'Planets' Pay Daily Visits to Sycamore

Mars and Moon are at Sycamore. In fact, they report to the Astronautics test facility every working day.

N. B. Moon and J. F. Mars are assistant foremen in operations support department and work side by side in the same blockhouse at this test facility on the outskirts of San Diego.



ONE VOTE HERE—Mary Kay Dugdale, Astro girl at Forbes AFB, was among contestants in "Miss Flame" contest staged at Topeka, Kan., in conjunction with National Fire Prevention Week.

Olympic Caliber

Pomona's C. E. 'Buster' Campbell Once Big Name Skier, Still Tops

Convair Pomona's C. E. "Buster" Campbell (Dept. 5) is something like the proverbial firehorse who still responds to alarms even though he has been retired.

Campbell, who 10 years ago was one of the big names in U. S. skiing, "came out of retirement" last month to compete in ski jumping at the Los Angeles County Fair. And he did quite well, taking six second places and one third, even though he had jumped only one day during the last two years.

Competing in the "open" class, Campbell was topped in six of the contests only by the famous Alf Engen, who is still considered by many to be the greatest all-around skier in U. S. skiing history.

A native of Leavenworth, Wash., Campbell started skiing when he was six and won two state skiing championships in high school. He served as a ski trooper during World War II, starting as one of the U. S. Army's first ski instructors, and later becoming a first sergeant and then a regimental sergeant major. He saw action during the invasion of the Aleutian Islands, and also in Northern Italy. He eventually earned a battlefield commission, and became a company commander.

Following the war Campbell enrolled at the University of Washington, and during his second year there, although still a student, he was asked to become director of winter sports and head coach for the ski team. In 1947 skiing was recognized as a major sport at the University, and Campbell became a full-time member of the athletic department. He remained in that position until 1953, earning his degree along the way.

In the meantime Campbell became a member of the 1948 U. S. Olympic ski team. Due to a shortage of funds for the team that year, however, Campbell was unable to make the trip to St. Moritz, Switzerland.

He did, however, compete two years later as a member of the U. S. ski jumping and cross-country teams in the F.I.S. world championships, conducted at Lake Placid, N. Y., and Aspen, Colo.

As one of the tallest jumpers in a sport usually dominated by short men—he is six feet, two inches tall—Campbell developed a jumping form early in his career that was considerably different from the accepted "classical" style.

"Most ski jumpers lean forward from the waist, but to overcome the disadvantage of my height I learned to tilt my whole body forward from the ankles," Campbell said. "In recent years I have noticed that a large number of top jumpers have adopted a similar style."

One of Campbell's specialties was the "four way," or "four event" competition. Somewhat similar to the decathalon in track, scoring in this competition was based on totals from jumping, cross-country, downhill and slalom events.



SKI TROOPER—C. E. "Buster" Campbell, Dept. 5 at Convair Pomona, spent five years as ski trooper during World War II, saw action in Aleutians and Northern Italy. He later won field commission.



AUTHOR—R. F. Rolsten, Convair SD materials technical group, author of book on materials processes, holds chromium deposit. Zirconium and titanium crystal bars are in foreground.

Materials Research Expert For SD Authors Book on Modern Processes

A Convair SD materials research expert is author of a book on new materials processes to be released next spring as an Electrochemical Society monograph. It is being published by John Wiley and Sons, Inc., of New York City.

R. F. Rolsten, who joined Convair SD materials technical group early this year, discusses combination of disciplines of inorganic and physical chemistry in making ultra-high purity metals.

Title of this 600-page book is "Iodide Metals and Metal Iodides."

His material covers 10 years of research at E. I. du Pont de Nemours; Battelle Memorial Institute, Columbus, Ohio; and Ohio State University where he received his Ph.D. in physical inorganic chemistry.

By determining fundamental properties of pure metals and alloys, he explained, properties of alloy systems suitable for weapon systems of the future can be determined.

He also has written a number of technical articles for English and German publications.

Two Score Take Newest Course In Convair Jets

Largest class to take a course on Convair jet transport familiarization in the production flight department is "pushing out the walls" in Bldg. 4 training area at SD Plant 1 as the first 600 jetliner program goes into its third week.

Coming to San Diego from Sweden and Switzerland are 30 SAS and Swissair pilots, flight engineers, and instructors to start their formal education on the refined Convair jet transport. K. Scharer, Swissair technical pilot, and Mikal Aschim, SAS captain, are coordinating the program with L. W. Hughes, coordinator of the Convair course.

In addition to the Swissair-SAS men are eight others, including a Swedish Civil Aeronautics inspector, Olof Ankarholt; and two FAA inspectors, C. F. Stacy and H. B. Strawn.

W. K. Owen, American Airlines engineering test pilot, and Jack Trout, REAL flight engineer instructor from Brazil, are also entered in the course as a forerunner to the future classes to be given on their versions of the new jetliner.

Three Convair SD men are students in the familiarization training—William Milburn, flight engineer-instructor; and two aircraft and engine apprentices, T. D. Fritzges and J. H. Hamann.

Starting Oct. 10 the five-week course is covering all phases of the Convair 600. Convair SD flight engineer-instructors are teaching following subjects: J. B. Van Houten, airplane general, flight controls, emergency equipment; C. L. Johnson, power plant, fuel, electrical and electronics, and instruments; Ludy Knudsen, hydraulics and air conditioning, adverse weather; A. P. Wilson, Convair SD production flight captain, performance and operating techniques. P. H. Selby is supervisor of all production flight training programs for customers at Convair SD.

Also starting last week was a similar course of the same duration on the 880-M version for Japan Air Lines. Besides seven JAL men from Tokyo, several Convair SD inspectors, field operations men, and engineers, and four FAA inspectors are taking the course at the same time.

B-58 Co-Stars In Movie on SAC Mission

A Carswell-based B-58 Hustler co-stars with Strategic Air Command personnel in "Tall Man Five-Five," a new 30-minute documentary film.

Viewers get a capsuled explanation of sonic booms—the "new sound of freedom"—while observing SAC and B-58s in action.

Air Force is expected to obtain several hundred copies of the film for nation-wide showing at their installations.

Story line of the film involves simulated bombing at Mach 2 and 40,000 feet of Deerfield, Mass., by a Carswell-based B-58. Code name for the 3,000-mile SAC sortie: "Tall Man Five-Five."

Narration is by Chet Huntley, nationally-known news commentator. Production is in color.

Cooperating with Convair on the film were Air Force, SAC, and General Electric.

Much of the footage was filmed at Carswell AFB, with Convair furnishing technical direction and assistance on the script and filming. The aerial footage was shot by SD cameraman Bill Carter.

The film was "enthusiastically received" during recent Southwestern premieres at Carswell AFB.

Copies of the film are available in the office of Loyd Turner, special assistant to the FW manager, for showing to civic, fraternal and church groups in the area.

Rare Fruit

California's Only Litchi Orchard Owned By Convair SD Engineer

A wide circle of Chinese friends and a taste for a rare delicacy are the results of R. E. Hamilton's five years as owner of the only commercial litchi orchard in California.

Falling heir to the trees when he purchased his El Cajon acreage, Hamilton, a systems dynamics lab engineer at Convair San Diego, has carefully cultivated the eight bearing trees to keep them producing the unusual fruit, in much demand by Chinese-Americans.

The 40-year-old litchi trees are the only known planting in California producing fruit for commercial sale, although a few individual trees may be found.

Hamilton and his family look forward to the fall of each year when their steady customers come from all parts of Southern California to buy the fresh fruit, and pick it from the trees themselves, if they like. The ripe fruit is about the size of large strawberries with an outer red shell-like covering. The firm flesh is white, similar to the Muscat grape, with a small, hard seed. It grows in clusters, contrasting colorfully with the dark-green shiny foliage.

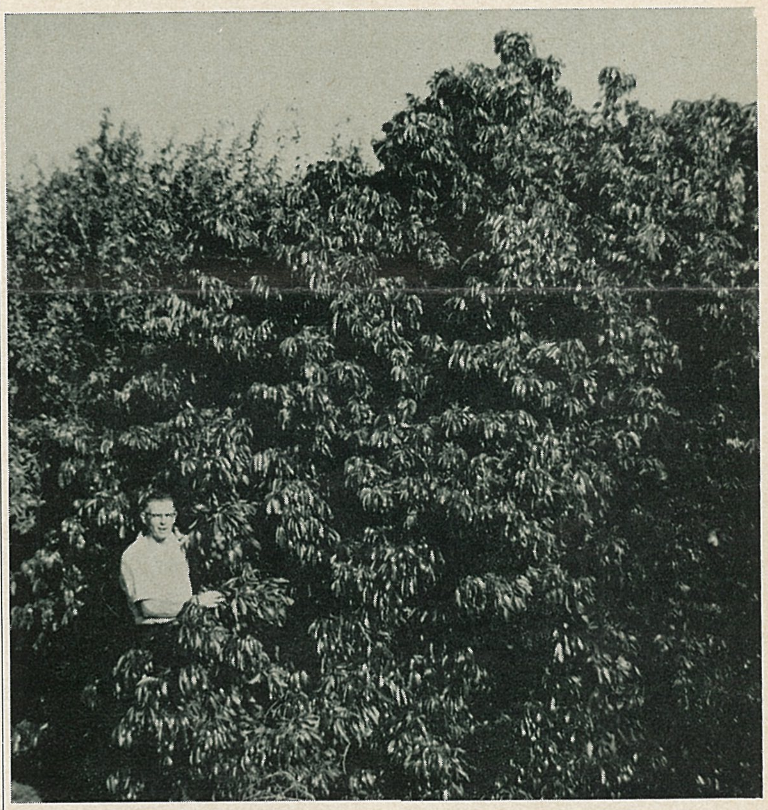
A native of South China, litchi (or "lychee") fruit is highly prized by those who have known it in the Orient.

Because the fresh fruit does not ship too well or retain its flavor under refrigeration, explained Hamilton, the only form in which it is usually seen in stores is as litchi nuts—dried within the shell and imported from China.

The Hamiltons are expanding their orchard with 14 young trees due to start bearing in another year or two. As the long-lived trees often bear fruit until they're 100 years old, they may be supplying children and grandchildren of present customers in years to come. Now, the Hamiltons' Chinese friends call months in advance to be sure to be on the list when September ripening time rolls around.

Hamilton says that he and his wife have become very fond of the fruit themselves. "We've apparently cultivated an expensive taste, which we wouldn't indulge if we didn't raise our own," he jested. (The fruit markets for $1.50 a pound.)

Other exotic fruits—such as sapote, Surinam cherries, Cherimoya, mangoes, jujube—can be found among the more prosaic oranges and avocados growing on the Hamiltons' 11 acres. However, the litchi fruit is the most satisfactory crop, he said, not only in paying its own way, but from the many contacts it brings with peoples from other countries.



RARE FRUIT—R. E. Hamilton of Convair SD Dept. 6 picks fresh litchi fruit at his El Cajon orchard, only commercial planting in California.

Surprise Ending Climaxes Search For Brother Missing 35 Years

A 35-year, world-wide search ended last month when a 65-year-old Convair SD engineer found his lost brother because of a seemingly simple suggestion made by the wife of a friend—look him up in the phone book!

The reunion in Rome, Italy, climaxed a story that began in 1917 when Serge Tchemessoff made his escape from Russia during the Bolshevik Revolution.

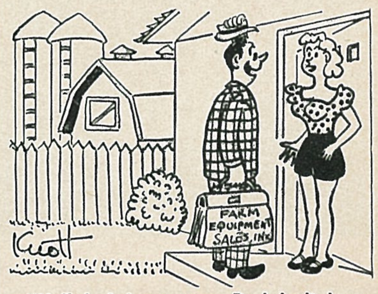
A few years later Tchemessoff felt safe enough to attempt to contact his brother. His search continued, in the main without success, for nearly 35 years. The one important piece of information that came to light, however, was that his brother had managed to escape from Russia in 1935 and had presumably fled to Italy.

Only two months ago, Tchemessoff, who has been with Convair for 15 years, decided to fly to Rome to do a little searching on his own. A few days before his departure he visited the home of a friend who supplied him with names of people who could possibly help him in his search.

As he was leaving, his friend's wife suggested that he look in a Rome telephone directory. The next morning she took the project upon herself and called the San Diego library. Tchemessoff, in his own words, "was stunned" when informed of her findings.

After a 13-hour wait (because of heavy traffic for the Olympics) he got a call through to Rome. "When my brother's voice came over the line I truly felt that he had been resurrected from the dead," Tchemessoff recalled.

Tchemessoff returned from his trip to Rome early this month. "All I can say is that it is wonderful to have a family again."



"Hello! I hope your Dad isn't home so we can discuss tractors."

NEWS FROM OTHER DYNAMICS DIVISIONS

General Dynamics Corporation, created in April, 1952, as successor to Electric Boat Company, is composed of seven divisions and a Canadian subsidiary, Canadair Limited, of Montreal, airframe builders. The divisions are:

Convair, head offices at San Diego, Calif., aircraft, missiles, and space systems.

Electric Boat of Groton, Conn., submarines.

Stromberg-Carlson, of Rochester, N. Y., telecommunications, electronic equipment.

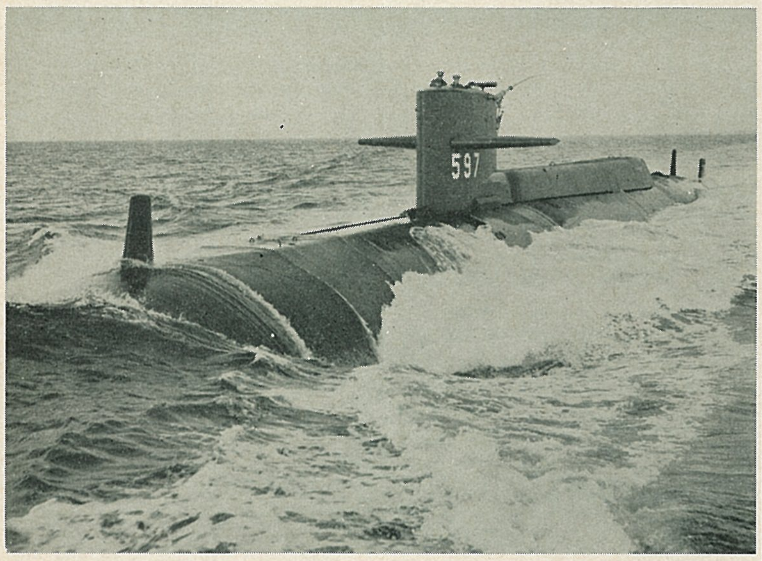
Liquid Carbonic of Chicago, Ill., carbon dioxide producer, industrial and medical gases.

General Atomic of San Diego, Calif., nuclear research, development, production.

Electro Dynamic of Bayonne, N. J., electric motors, generators.

Material Service Division, Chicago, Ill., building materials, concrete products and coal.

* * *



A-SUB'S NEW LOOK—Fore and aft dorsal fins protrude from Navy's 14th operational nuclear submarine, Tullibee, shown during builder's trials in Long Island Sound. Tullibee was designed for anti-sub warfare. Vessel is shown returning to builders berth at General Dynamics shipyard (Electric Boat), Groton, Conn.

TRIGA Reactor Deal For Finland Okayed

WASHINGTON—The board of governors of the International Atomic Energy Agency has approved the transfer to Finland of a U. S. nuclear reactor and the fuel to operate it. The transfer will be made through the international agency under a tripartite agreement between the IAEA, Finland and the United States. The reactor is a General Dynamics Corporation TRIGA Mark II, planned for construction at the Institute of Technology near Helsinki.

This will be the first transfer of special nuclear material by the IAEA.

Yugoslavia Grant For TRIGA Revealed

SAN DIEGO—The United States Government has extended to the Federal Peoples Government of Yugoslavia grants totaling $350,000 to assist in furthering the peaceful uses of atomic energy, including installation of a General Dynamics TRIGA reactor which the Yugoslavs will use for nuclear training and research. It will be the first American atomic reactor in Yugoslavia.

The versatile and safe TRIGA was conceived and developed by General Dynamics Corporation's General Atomic Division.

Ethan Allen's Launch Nov. 22

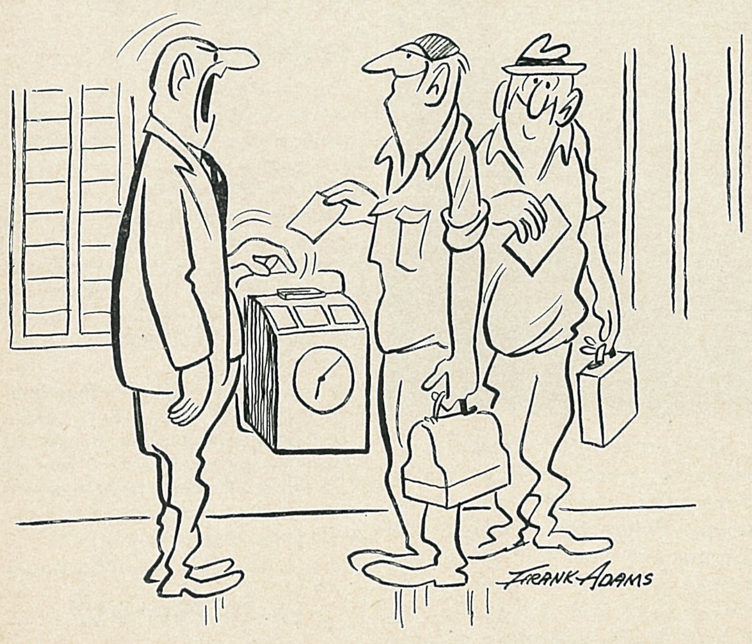
GROTON, CONN.—The first ship in an entirely new class of nuclear-powered Polaris missile submarines will go down the ways Nov. 22.

Somewhat larger than her predecessors, she is the Ethan Allen, scheduled for launching at General Dynamics Corporation's Electric Boat Division, where the nation's first Polaris submarine, the USS George Washington, is being readied for deployment.

Named for the Revolutionary War leader of the Green Mountain Boys, the Ethan Allen will be sponsored by Mrs. Robert H. Hopkins of Brookline, Mass., great-great-great granddaughter of the Vermont hero.

Designed from the keel up for firing the 1,200-mile solid-fueled Polaris, the Ethan Allen displaces 6,900 tons and is 410 feet long. Four more submarines of the Ethan Allen class have been authorized and all will be equipped with 16 Polaris tubes in their midships section.

The George Washington class displaces 5,900 tons and is 380 feet long. Both the George Washington and the Patrick Henry, second of the fleet ballistic submarines, recently completed successful submerged launchings of the Polaris.



"For your information . . . this is known as 'the time clock' . . . not 'the point of no return'. . . "

And It Was Rugged

Catalinas During Early War Days Saw Duty Aleutians to Solomons

(Catalina duty in Pacific was tough during early days of World War II, whether in north or south. This is installment No. 46 of continuing history of Convair.)

In the desolate Aleutians, target of a simultaneous 1942 enemy attack, some 20 PBYs of Patrol Wing 4 (Capt. Leslie E. Gehres—now RAdm. (ret.) of San Diego) comprised the Navy's air arm, sharing the defense burden with a meager force of Army planes. Catalinas first sighted the enemy force June 2 and on June 10 discovered the enemy beachhead on Attu. Beginning June 11 they resolutely tried to carry out an order from Pearl Harbor to bomb the Japanese out of Kiska, staging round-the-clock sorties from the tender Gillis for 48 exhausting hours.

Nowhere was Catalina duty tougher. A Navy historian (Morison, History of U. S. Naval Operations in World War II, Vol. VII) described the life of Patwing 4:

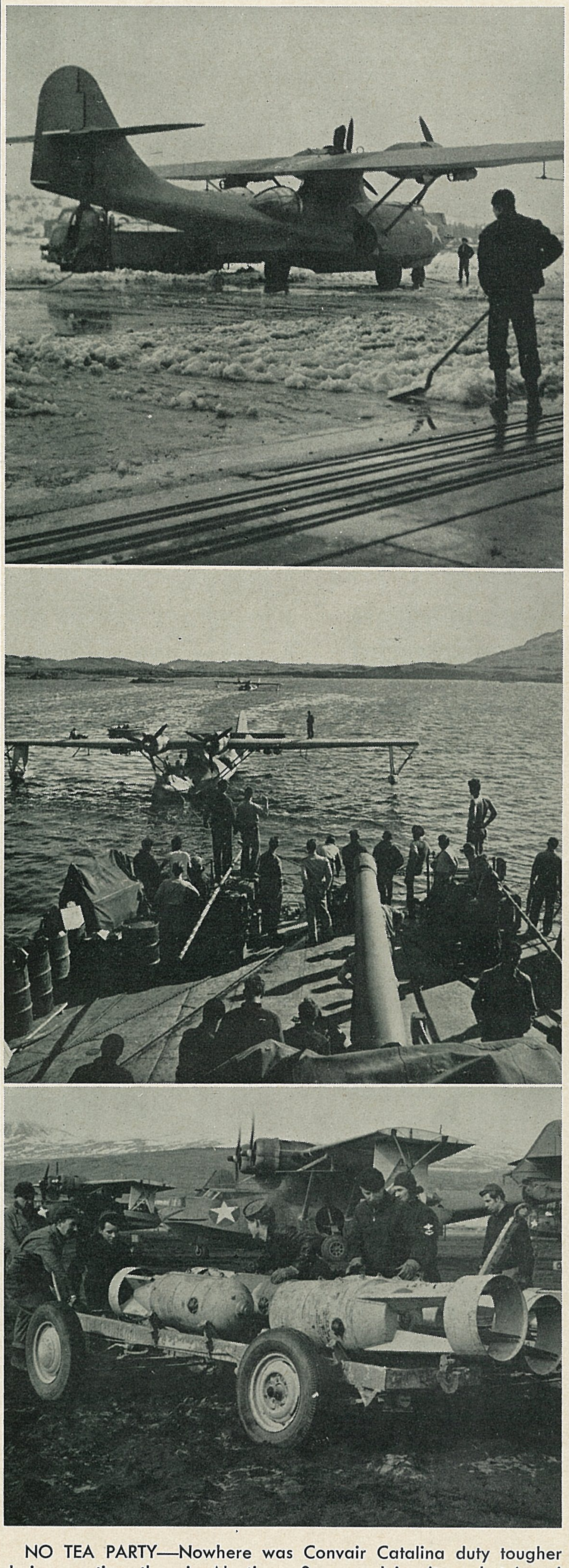
"Blow high, blow low, thick weather or clear, they had to fly. This meant warming up the engines with blowtorches, scraping snow and melting ice off the wings, loading heavy bombs or torpedoes with numbed hands, taking off in the dark, sometimes downwind with an overloaded plane, and, if the plane were water-based, with frozen spray obscuring the windshield. . .

"Any plane forced down in the wild open sea was doomed, and unless rescued promptly the survivors died of exposure. On the flight home there was always the danger of being dashed to bits against a mountain while the plane 'hung on props' over the field, awaiting a hole in the overcast. Once safe ashore the crew had to help overhaul their Catalina. In the early days of the campaign the PBY ground crews lived a sort of gypsy existence, begging tools, clothes, food and even shelter from the Army or any naval vessel that happened along."

When our landings on Guadalcanal signaled the opening of the long Pacific amphibious campaign in August, 1942, RAdm. John S. McCain's SoPac Cats were in the thick of it. The tender McFarland took station at Ndemi in the Santa Cruz Islands Aug. 5 as a base for five PBYs, and on Aug. 7 (D-Day at Guadalcanal) tender Mackinac moved to Malaita so her nine flying boats could cover search sectors northward toward the enemy citadel at Truk. By October, Task Force 63 (land and water-based planes under RAdm. Aubrey Fitch) included 32 PBYs and the tenders Mackinac and Curtiss.

The PBY had two great virtues, cruising range and rugged dependability. But neither it nor the later larger flying boats of World War II, notably the Martin PBM and Convair PB2Y-3, had the speed or armament for combat duels. Late in 1942 the PBY's usefulness was extended by adapting some planes for scouting and bombing under cover of night. This was a specialized mission in which the Catalinas served well during the island-hopping campaigns of the Pacific.

In December, operations were started from Guadalcanal by Squadron VP-12 (organized under Lt. Cdr. J. P. Fitzsimmons, subsequently skippered by Cdr. Clarence O. Taff). Equipped with radar and painted jet black, planes of the squadron (the "Black Cats") normally took off after 10 p.m. to range up "the Slot" all night on search or bombing missions, or to spot gunfire for surface bombardment.



NO TEA PARTY—Nowhere was Convair Catalina duty tougher during wartime than in Aleutians. Snow and ice (top photo) and stormy weather were with them constantly. In center picture Catalina fuels from tender, while below, crews shuttle bombs in mud.

Scientists Give Lecture Series

General Dynamics Corporation specialists in scientific fields will be donating their services to the "Meet the Scientist" program in San Diego County this year.

Dr. Edward C. Creutz, vice president for research and development, General Atomic, opened the 19-lecture series, arranged especially for young people in the area, with a talk on "Models of the Atomic Nucleus" Oct. 10.

Dr. William Erickson, senior staff scientist of Convair scientific research laboratory, will speak Nov. 8 on "Radio-Astronomy" at Clairemont High School, 3 p.m. Joan Shirley, Astronautics research scientist, will give a talk on "Zero G Effects" Dec. 5 at Hoover High School, 3 p.m.

The program, in its third year, is co-sponsored by Convair San Diego, Astronautics, General Atomic in cooperation with University of California at La Jolla, San Diego State, and Navy Electronics Laboratory.

San Diego Firemen To Get Astro Drill

Astronautics' Sycamore Canyon Test Site will host more than 150 City of San Diego firemen at a series of special demonstrations in November.

Four groups from the city fire department will attend classes at Sycamore Nov. 14, 16, 21 and 23 to learn special techniques involved in fighting fires originating with liquid oxygen.

Instruction will include safety demonstrations and lectures, first aid procedures, and applications of special fire fighting equipment.

John Lockwood, Sycamore industrial relations, is instructor.



FIRST STOP—Leaving Astronautics' new freight and passenger shuttle aircraft on first stop at Topeka, Kan., are K. R. Johnson, left, airline operations manager; Ann Krick, hostess; Maj. Frank Dean, BMC chief of systems support; C. J. Stafford, Astro traffic general supervisor; Mrs. Etta Schafer, SATAF, Topeka, transportation specialist; J. Leach, traffic representative and D. L. Finney, Convair operations, Forbes AFB; Lt. Col. Lee Batton, BMD director of transportation, and C. A. Krueger, Astro's chief of material, Forbes AFB.

Seven Convair Archers Notch IRC Shoot Wins

Archers from Convair San Diego shot themselves a clean sweep in the barebow division of the annual Industrial Recreation Council Archery Shoot Oct. 9 at the Balboa Park Field Range.

Convair SD archers were ranked first in each of the four barebow division classes. They were Roger Redden, class 400; Al Phipps, 325; Wally Butts, 250; and Eddie MacDonald, 175.

Two Astro archers also notched wins at the shoot which attracted more than 500 spectators, many of whom lined the Cabrillo Bridge which spans the new Balboa Park Range. Astro's Douglas Beary led the junior division and Ruth Ribby placed first in class 125 of the ladies' division. Still another Convair SD archer, Danny Osborn, won the intermediate division.

Convair archers garnered the most first-place wins of any group participating, followed by Naval Air Station which placed five class winners.

The Balboa Park Range will get another workout Sunday (Nov. 13) when Convair SD Archery Club holds its regular monthly field shoot there starting at 9:30 a.m.

Travelers to Trek To Dripping Springs For Weekend Trip

Astro Travelers plan a Halloween trek to Dripping Springs this weekend (Oct. 29-30).

Trailer enthusiasts and camping fans have been invited to join at the camp site in Cleveland National Forest about 70 miles north of San Diego. The site is reached by taking Highway 395 north to the junction of Highway 71. Dripping Springs is 12 miles east of the junction.

A potluck supper is slated for Saturday evening.

The club has scheduled a business meeting at 7:30 p.m., Nov. 2, in Astro's Bldg. 2 lobby.

Classes to Improve Reading Scheduled

Convair SD and Astro people interested in improving their reading ability may sign now for a new class starting Nov. 14 at Midway Adult High School.

Reading improvement sessions will be held Mondays and Wednesdays from 6:30-9:30 p.m. Prospective students are urged to make reservations by calling AC-3-1671.

Among other adult education classes now open is one in public speaking given at San Diego Evening High School Tuesdays, 6:30-9:30 p.m. Students may enroll without charge throughout the semester.

DINNER WILL END SKI CLUB SEASON

Scheduled summer activity will wind up for Convair SD Water Ski Club with an end-of-season dinner Saturday (Nov. 5) evening in the CRA Clubhouse, Gillespie Field.

Gene Sevigny, commissioner, asked those planning to attend to contact Don O'Neill, AT-1-2093, for confirmation.

Weekend skiing on the east shore of Tierra del Fuego will continue on a phone call basis only. Commodore Herb Wexler, BR-8-3780, will coordinate the schedule.

CRA's Astro Players To Convene Nov. 2

Astro Players, CRA-sponsored drama club, will hold a business meeting in Astro's executive dining room at 7:30 p.m., Nov. 2.

The group will discuss their recent performance of "Arsenic and Old Lace," and accelerate planning for future productions.

Asst. Commissioners Named For Activities

Growth within two Convair Astronautics CRA activities, golf and bowling, has prompted the appointment of several assistant commissioners to aid regular commissioners in conducting their activities.

Assisting Golf Commissioner Art King will be Ray Demitrowicz, Mac McChord, Morrie Baxter and Dick Tobias.

Jack Boyle and Willard Brassell, bowling commissioners, have named Rudy Romero, George Peck, Lorraine Sweeney, Larry Buckmaster, Wayne Williams, Clark Saunders and Leroy Walsh as assistants. Keepers of bowling averages for all CRA leagues, Vic Salgado and Ed Frankowski, will also serve as assistant commissioners.

ASTRO MODELERS SLATE ELECTIONS

Club officers will be elected at the next meeting of the Astro Modelers at 7:30 p.m., Nov. 5, in the Astro cafeteria.

Also on the agenda for this meeting is a discussion of plans for coming contests, with special emphasis on the club championship model meet in December.

At their last meeting, Astro Modelers viewed movies of radio controlled models used to flight-test R3Y prototypes by Convair SD.

Plans were also made for the club's "Turkey Day" flight contest and family outing slated for Nov. 19 in the CRA recreation area.

Summer Keg League Trophies Go Begging

Many trophy winners in Astro CRA's summer bowling leagues at Clairemont Bowl have not yet collected their awards.

The trophies will be available at employee services office, Bldg. 8, tomorrow (Oct. 27) only. Those which are not picked up at that time will be sent to a trophy room in the CRA area clubhouse.

Turkey Shoot Slated Nov. 6 For Gun Club

Skeet, trap and rifle events will be shot at the annual Convair SD-Astro Gun Club Turkey Shoot on Sunday (Nov. 6) which will start at 9 a.m. at the CRA Range, Gillespie Field.

Both veteran and beginning shooters will have equal opportunity to win a Thanksgiving turkey because both luck and skill will be the winning criteria. Guns will be available free of charge at the range for those who need one.

Shoot winners will be able to pick up their turkeys at the Nov. 8 meeting of the Gun Club which will start at 7 p.m. in the Gillespie Field CRA Clubhouse. In addition to the regular program, an outdoor film will be shown, free refreshments will be served, and a door prize drawing will be held.

To provide more time for out-of-state hunters to register their game, the annual Big Game drawing will be held at the December club meeting, not the November session as originally planned.

Hunters are encouraged to register their kills at the nearest employee services location. Top prize will be a Model 70 Winchester. Registration is free.

SHOP BASKETBALL LEAGUES FORMING

Departments planning to field shop league basketball teams at both Convair San Diego and Astronautics are asked to contact their respective CRA hoop commissioners so that arrangements can be made for a pre-season tourney between the two divisions.

Astro departments interested should contact Ray Mendoza, ext. 1111; reservations at Convair SD are being taken by Gil Crosthwaite, ext. 1245, Plant 1. Deadline for hoop entries is this Friday (Oct. 28) at 5 p.m.

As soon as enough squads are signed up, courts and tourney dates will be scheduled and teams from both of the divisions will be matched against each other in a special tourney. Regular league play at each division will start after Jan. 1.

Astro Wives to Hear Style Hints Nov. 9

Astro Wives Auxiliary will present Joan Marston with fashion hints for wives and guests at 8 p.m., Nov. 9, in the Astro executive dining room.

Using models to illustrate her presentation, "Miss Marston" will demonstrate the versatility of the basic black dress as it is adapted for every occasion through careful choice of accessories.

Dessert and coffee will be served after the show.

There is no admission charge. However, reservations should be made well in advance by calling employee services, ext. 1111, or Mrs. George Koulaxizes, program chairman, BR-8-2148.

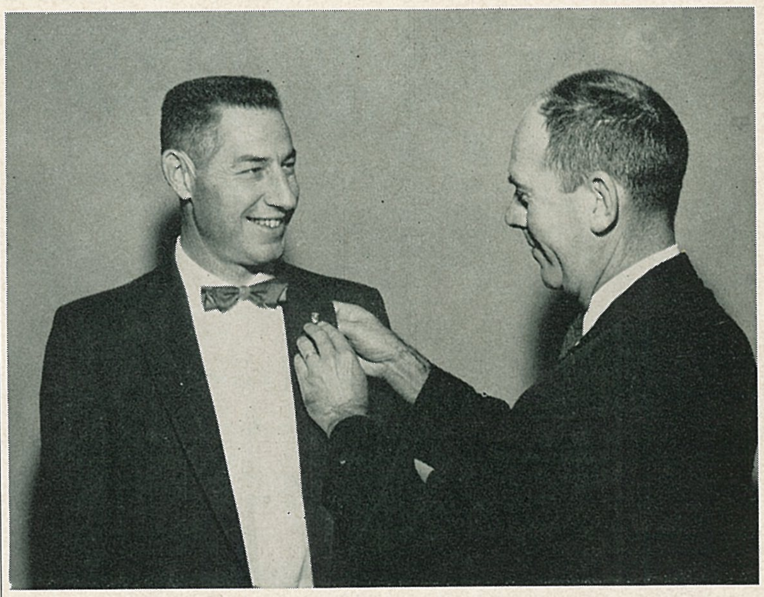
Rockhounds Planning Jaunt Into Mexico

Astro Rockhounds plan to band with some 200 other collectors Nov. 5 for an excursion into Old Mexico after specimens.

Gathering place will be De Anza Hotel, just north of the border at Calexico. Checking in time is 8 a.m. Plans call for issuing streamers to all cars making the trek. A special police escort will guide the group through Mexicali.

Special interest will center on gathering rhyolite or Mexican wonder stone and petrified wood.

Next regular meeting will be at 7:30 p.m. Nov. 10 in the Astro executive dining room.



SERVICE MILESTONE—M. C. Nesbitt, Dept. 270, receives 25-year service pin from E. D. Bryant, Astronautics works manager, in ceremony in division conference room. Nesbitt joined Convair in 1935.

Victims of Bus That Overturned On Vegas Journey Recovering

Six Convair persons were still in the hospital last week because of injuries suffered when their chartered bus returning from Las Vegas skidded and overturned on a rain-covered highway near Baker Oct. 9.

They were: Lydie Hewitt (Dept. 91), Ralph Redo (Dept. 215), Mary Andrade (Dept. 231), in Southern Nevada Memorial Hospital in Las Vegas; Frances Rance (Dept. 21), in Sharp Memorial Hospital, San Diego; Catherine (Dept. 192-7) and J. B. Holcombe (Astro), in Helix Hospital, La Mesa.

The accident happened at 2 p.m. in a heavy downpour 60 miles south of Las Vegas on U. S. Hwy. 91. The bus slowed as it overtook a sports car and skidded, overturned and landed in a ravine against a bridge abutment.

Thirteen of the 38 Convair passengers on the bus were admitted to Southern Nevada Memorial Hospital, 21 others were treated but not admitted, and four were taken to San Bernardino for treatment and examination.

"Despite the seriousness of some of the injuries no panic broke out and everyone remained calm, cool and collected, averting further tragedy," said Martha Woodberry, Convair Recreation Association representative, who was riding in a second bus which backtracked to help care for the injured.

Passing motorists stopped to help before ambulances arrived to transport the injured. They supplied coats and blankets to cover the drenched victims. The driver of a moving van donated two dozen quilts. Thelma Pollock, a resident of Valley Wells, almost two miles from scene of the accident, brought several gallons of coffee, which was credited with keeping some of the more seriously injured from going into shock.

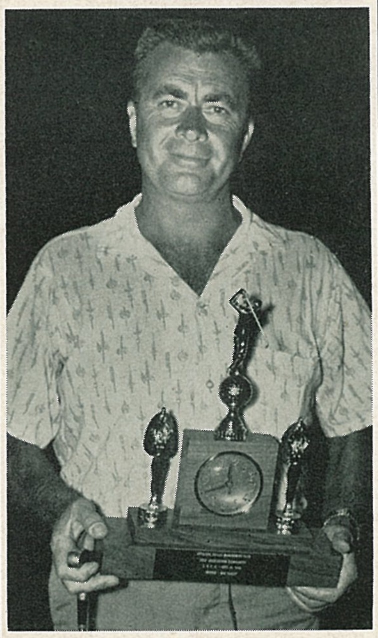
120 Convair People On European Trip

A full load of 120 Convair passengers will be off on a two-week European holiday this Saturday (Oct. 29).

Their SAS Jet Polar Flight will leave Los Angeles Saturday morning at 9:30 and arrive in Copenhagen at 9 a.m. Sunday. Many of the passengers are Convair engineers in the "foreign legion" who will be visiting relatives and families in Europe.

Eleven of the travelers will take guided tours of the continent, others will cover Europe on their own. Sponsor of the trip is the Convair SD Recreation Association.

The return flight will leave London Nov. 12 at 9:45 p.m. and arrive in Los Angeles at 3:45 a.m. Sunday (Nov. 13).



ONE WINNAH—Convair participants fared poorly during September when 8th annual Antelope Valley Management golf tournament was held. Convair's entry as team placed fourth. However, Frank A. Sweger of Astro's MSTS operation copped first in second flight after 18-hole putt-off broke tie.

Fencing Club Gets New Officer Slate

The joint Convair SD-Astronautics Fencing Club elected officers for the current semi-annual period at a recent meeting.

Ray McNamara, SD Dept. 6, was elected president, with Lowell Dubberke, Astro Dept. 535-3, vice president, and Peter Habluetzel, SD Dept. 6, treasurer.

Mike Hurley, Astro Dept. 575-1, is Astro CRA fencing commissioner.

The club meets regularly for practice sessions at the downtown YWCA, Fridays from 7:30 to 9:30 p.m. All employees are welcome. Equipment is provided and no previous fencing experience is required.

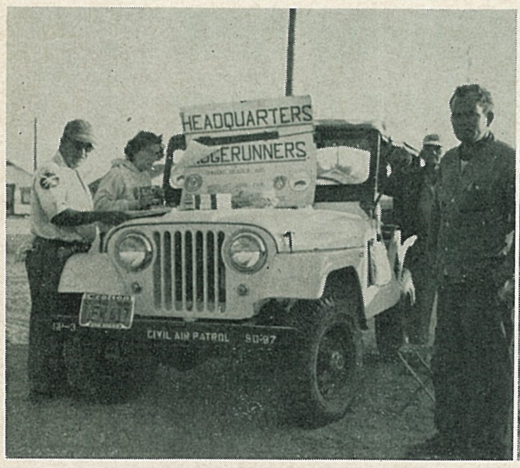
Toastmasters Elect Convair Engineers

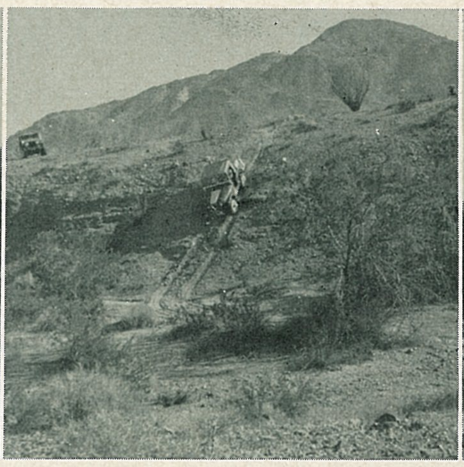
Convair SD engineers stepped into top offices of Hospitality Toastmasters Club #683 following a recent election for the current six-month term.

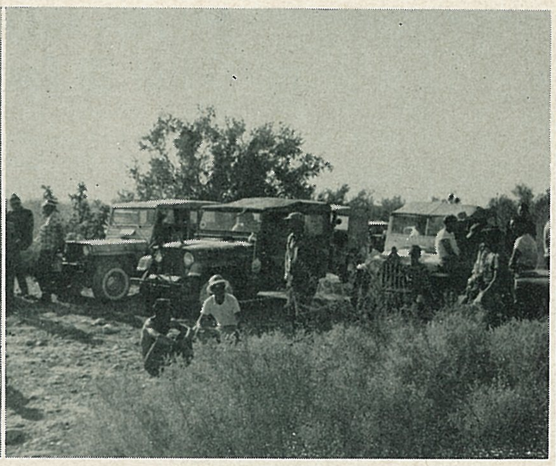
Taking office at the Oct. 4 installation were John Rittweger of SD propulsion group, president; John Lievens of electrical, educational vice president; Charles Warner, also SD electrical, treasurer.

A third of the group's membership is from Convair San Diego, reported Lievens, who urges all interested men to contact him at JU-2-2662. Weekly meetings are held Tuesday evenings, 7-9 p.m., at Haynes Streamliner.

Is It News? Call Convairiety







ROCKY RIDE—Thirty-eight jeep clubbers from Convair SD were among 200 who turned out for fifth annual San Diego Ridgerunners Jeep Cruise Oct. 1-2. Thirty-mile trek started at Desert Center, ended at Chuckawalla Wells. At far left is Convair SD's Art Thomas, cruise leader. In center photo, jeep noses down hill, typical of terrain jeepsters traveled. At right drivers, passengers rest before preparing camp. In spite of rough terrain, no accidents or mishaps marred "routine" back country jaunt.

Fifth Jeep Cruise Runs on Schedule

Fifth annual San Diego Ridgerunners Jeep Cruise was unusual primarily because it went off on schedule, none of the jeeps tipped over, and no vehicle breakdowns developed.

"That's right," said Art Thomas, cruise leader, "the trip went off like clockwork, and was one of the most enjoyable affairs we've sponsored."

Almost 200 persons boarded 68 jeeps to make the cruise, among them were 36 enthusiasts from Convair SD. "Actually, attendance was lighter than usual, which we attribute to the opening of deer season the same dates as the Oct. 1-2 trip," Thomas said.

The caravan left Desert Center on Hwy. 395 on Saturday morning, arriving at the Chuckawalla Wells camp at 3:30. About 30 miles of rough country was covered.

COIN CONVENTION SET IN SAN DIEGO

Members of Convair SD Coin Club will help host the California State Numismatic Association Convention in San Diego Oct. 27 through Oct. 30.

Admission will be free and the public is invited to attend the four-day exhibit in the U. S. Grant Hotel which is expected to attract some 40 to 50 leading coin dealers from all parts of the country.

Some of coins to be auctioned Friday and Saturday afternoons include a rare U. S. 20¢ piece valued at about $12,000. On display will be a 1913 liberty nickel, one of five known coins of this type, valued between $15,000 and $20,000, according to R. A. McCracken, CRA club president.

Convair Nine Wins First League Game

Convair SD's American League baseball entry erupted for five runs in the eighth inning to edge Westgate Tuna 9-8 and win its opening game of the new season.

"We're in first place now, but it's hard telling how long we'll remain there," commented Commissioner Pete Beyrer. "The competition is going to be keen."

During the next two weeks the Convair SD nine will play Imperial Valley at Brawley Oct. 30 and on Nov. 6 they will meet Convair Astronautics at 1 p.m. at Mission Bay Youth Field.

Delta Divers Plan Hunt for Lobsters

Tonight's the night—for a dip, that is!

Delta Divers from Convair SD will jump in the ocean tonight (Oct. 26) at 8 p.m. at North Bird Rock, La Jolla. Occasion will be a lobster dive and guests are invited to join in the search.

Old, new and prospective members are invited to attend the get-acquainted dives held every Saturday morning at 9 at The Diving Locker in Pacific Beach. For information, call Harry Ruscigno, ext. 2348, Plant 1.

CRA Sports & Recreation Convairiety

Golfers to Stroke for Turkeys At November Circle R Sweeps

Golfers from Convair SD will tee off for turkeys at the Nov. 5-6 sweeps at Circle R, said Ken Wulfemeyer, commissioner of golf.

Linksmen have until next Monday (Oct. 31) at noon to place reservations at ext. 1705, Plant 1. Turkeys will be prizes for winners in each flight.

Twelve golfers were named winners of low gross and low net awards after the October sweeps at El Camino Country Club.

In the 0-14 handicap group Al Reiter (Dept. 115) took low gross with a 74, runner-up was Ralph Long (Dept. 100) with 78. First low net shooter was Bill Glithero (Dept. 192) who handicapped a 69, ranked second was G. G. Grantham (Dept. 133) with 70.

George Hasti (Dept. 180) captured first low gross in the 15-20 handicap bracket with 87 strokes, barely beating T. C. Craghead's (Dept. 160) 88. Glen Baker (Dept. 138) and Jim Herring (Dept. 6) tied for low net with 71s.

In the third handicap group E. H. Williams (Dept. 400) won with 93. Bill Severson (Dept. 400) was second low gross with 95. Hugh Wilkison (Dept. 180) nabbed first low net with 70, Jess Gonzales (Dept. 400) was second with 73.

CRA Calendar

(Convair SD Recreation Association has some 40 activities in operation. For information on SD sports, call CRA headquarters, ext. 1245, Plant 1.)

★ ★ ★

AEROMODELERS — Annual free flight gas contest Oct. 30, 8 a.m.-2 p.m., Clairemont Mesa Blvd. site.

ARCHERY — Shoot Sunday (Nov. 13), starting at 9:30 a.m., Balboa Park Field Range.

BASKETBALL — Shop leagues now forming. Departments interested contact Gil Crosthwaite, ext. 1245, Plant 1.

BRIDGE CLUB—Next session Tuesday (Nov. 1), 7:30 p.m., Hotel Barcelona, 326 Juniper St.

COIN CLUB — Numismatic Convention at U.S. Grant Hotel Oct. 27-30.

DELTA DIVERS — Lobster dive tonight (Oct. 26), 8 p.m., North Bird Rock, La Jolla. Get-acquainted dives every Saturday at 9 a.m., Diving Locker, Pacific Beach.

FENCING — Workouts and instruction every Friday, 7:30-9:30 p.m., YWCA, 10th and C Sts.

GARDEN CLUB — Annual Chrysanthemum Show Sunday (Oct. 30), Floral Association Bldg., Balboa Park.

GOLF — Entries open until noon Monday (Oct. 31) for Nov. 5-6 sweeps at Circle R. Call ext. 1705, Plant 1.

GUN CLUB — Annual Turkey Shoot Sunday (Nov. 6), 9 a.m., CRA Range, Gillespie Field. Awards to be made at Nov. 8 meeting, 7 p.m., CRA Clubhouse, Gillespie Field.

JUDO—Workouts and instruction every Thursday in CRA Clubhouse, Pacific Hwy., 6-7:30 p.m.

MOVIES—Reduced-price movies Fridays, Saturdays, Sundays at Adams Theater, 3325 Adams Ave. Adults: 50¢; children under 12 free, if accompanied by adult.

PISTOL CLUB — Next regular monthly shoot Sunday (Nov. 13) San Diego Police Pistol Range, 9:30 a.m.

RADIO CLUB—Next meeting tomorrow (Oct. 27), 7:30 p.m., Harbor Drive headquarters.

ROAD RUNNERS — Trip to Borrego Desert, campsite approximately 10 miles south of Ocotillo Wells, Nov. 4-5-6.

SQUARE DANCING — All-Convair square dance Oct. 29 Astro cafeteria.

Three Land Prizes In Fishing Contest

Three Convair SD fishermen received cash contest awards at the Oct. 17 meeting of the CRA Fishing Club.

The $15 first prize went to Thomas Arsulich (Dept. 15-4) who registered a 3-lb., 2-oz. barred surf perch. George J. Kureri (Dept. 401) placed second ($10) with an 11-lb., 4-oz. bonito. Claiming the $5 third prize was W. C. Bowen (Dept. 188) whose bonito weighed 10 lbs., 9 oz.

Annual Mum Show Set This Sunday

Spectators are invited to view entries in the annual Convair SD Garden Club Chrysanthemum Show this Sunday (Oct. 30) in the Floral Association Bldg., Balboa Park.

Show hours will be 1 to 5 p.m. Entries will be accepted between 7 and 11 a.m. for the show which will feature 21 classes for mums, six in arrangements, two in corsages and two in the children's division.

E. L. Zimmerman, CRA commissioner, said entry lists are now available at employee services locations, both plants.

Next meeting of Convair SD Garden Club will be held Nov. 8 at 7:30 p.m. in the Floral Association Bldg., Balboa Park.

Wright New Prexy Of CRA Car Club

Newly-elected officers as well as outgoing officers and past presidents were feted by Convair SD Sports Car Club at a dinner-dance last Saturday evening.

Gil Wright, as president, heads the new officer slate; others are Jack Hurt, vice president; Mrs. Phil Lo Presto, secretary, and Hank Callihan, treasurer.

Members of the judicial board for the new club year are Vern Mathews, Gim Hom, Bill Wood, Charles Mohr, Bob Chillo and Sid Weiner.

Next Sports Car Club meeting will be held next Wednesday (Nov. 2) evening at 7:30 in the Balboa Park Natural History Museum.

Old Globe 'Picnic' Ticket Prices Cut

Reduced-price tickets for the Old Globe performance of "Picnic" on Sunday (Nov. 20) will go on sale at Convair SD employee services Monday (Oct. 31).

B. L. Broadway Pistol Team's Lead Shooter

A new Convair SD Pistol Club team was selected last week made up of shooters who tallied highest aggregate scores in Short National Match events during the past three months.

New members and aggregate scores for five events are: B. L. Broadway (Dept. 115), 827; Carl Hornburg (Dept. 139), 797; Jim Halfacre (Dept. 180), 787; and Joe Williamson (Dept. 401), 758.

Three of the four squad members continued their winning ways at the Oct. 9 club shoot. Broadway won the police course master class with a 293 score and followed up with a Short National victory, posting 284 points. Halfacre placed second in both categories with scores of 284 and 279. A 271 tally ranked Hornburg third in the Short National.

Other police course winners were P. C. Dubendorf (Dept. 115) who led the expert class with 283 points; Dorcus Utter (wife of Arley Utter, Dept. 119), top sharpshooter with 271 points; and Arley Utter who won marksman honors with 241 points. It marked one of the first times that the husband-wife combination walked off with honors in two classes.

Road Runners Trip Planned By Teen-agers

Teen-agers will do about everything but drive the campsters and travel trailers when the Convair Road Runners make camp Nov. 4-5-6 in the Split Mountain region of the Borrego Desert.

"Even a teen-age wagon master and wagon mistress have been elected for the November trip," said Harold Perkins, club president. "The menu they have selected is simple but appetizing —steaks and homemade ice cream!"

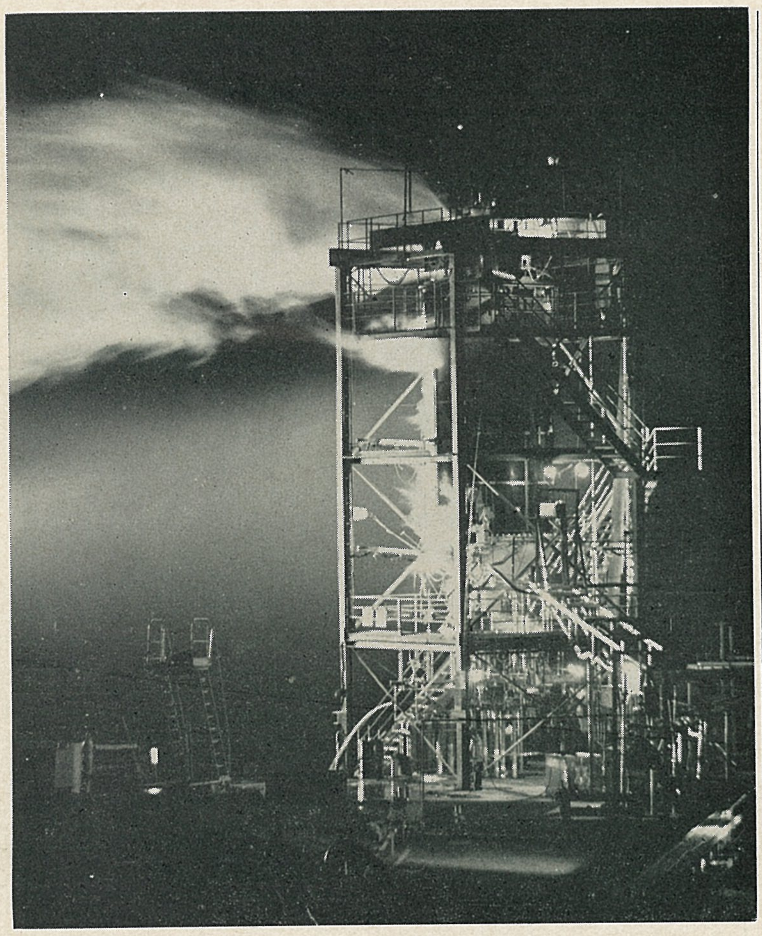
The teen-age council has also decreed that large families will share their offspring with couples who have no children of their own for temporary adoption over the weekend.

"We think this outing will be an interesting experience to say the least," Perkins said. The Borrego Desert campsite is approximately 10 miles south of Ocotillo Wells. Maps will be available for members and other Convair families interested in attending.

Perkins added that the trip earlier this month to Live Oaks County Park was attended by 69 persons.



SCENIC—Convair Spanish students who made two-week trip to Mexico this summer are shown here at Taxco, the "silver city." Nineteen from Convair class made trip, some "moved in" with Mexican families while in Mexico City, Acapulco was also visited. Budget-priced trip was arranged by instructor Jim Hardison (Dept. 15). Group was also given audience with American ambassador to Mexico, Robert Hill. Classes run continuously at Convair SD under CRA sponsorship.



NIGHT WORK—This Point Loma Centaur tank installation has been in use for almost a year, conducting 17 major tests of Centaur cruiser tank systems. This night shot by Keith Adams, Astro photographer, shows tank emitting clouds of steam-like vapor.

FW's McClure Speaks At SD Conference

Convair San Diego and Astronautics members of American Society for Quality Control, San Diego Section, heard J. Y. McClure, manager of quality control at Convair FW, speak at the Oct. 17 dinner meeting at Sands Hotel.

In his capacity as national president of the Society, McClure outlined the philosophy and goals of the organization. He has held executive posts in the Society since 1951.

L. I. Medlock, chief of Astro quality control, is current chairman of SD Section.

Technical Papers Earn Three Awards

Honorable mention awards have gone to three Convair men for papers submitted in the annual contest sponsored by Hydraulics and Pneumatics publication.

R. A. Cox, now an Astronautics design engineer, was chosen for his paper on "Hydraulic Actuation of the Convair Jetliner Landing Gear"; Paul L. Brady, Convair SD pneumatic group engineer, one on "Pneumatic Actuating Cylinder Control"; and E. E. Muehlner, chief project engineer of Convair Instruments, a paper entitled, "Measuring Hydraulic Leakage."

B-58 'Natural Starting Point' In Supersonic Liner Program

The Air Force B-58 Hustler bomber, only existing aircraft capable of sustained flight at high supersonic speeds, "is a natural starting place" in a program looking toward development of supersonic transports by about 1965.

But unless a supersonic transport is initiated soon, its availability will be delayed at least a decade beyond 1965, R. J. Patton, engineer for Convair Fort Worth, told the Aerospace Industries Association Export Committee recently.

A research flight program using the present B-58A as a starting point already has been proposed, Patton said, but to provide a complete background experience in supersonic transport operations, Convair proposes construction of a modified version of the delta-wing, four-jet Hustler, which flies at more than twice the speed of sound (Mach 2).

Changes would include new power plants, new wing leading edges, and substitution of a transport fuselage for the slender bomber body. The transport would be of an aluminum structure, employ a conventional horizontal tail, and would be powered by J-58 jet engines.

The aircraft would, however, take advantage of development testing which already has been accomplished for advanced versions of the B-58, Patton said.

"Such an airplane will provide supersonic cruise hours to insure a safe knowledge of the environment," Patton said. "It also would be a flying test bed to assure that reliable engines would be available for the flight regimes contemplated."

During evaluation, such new problems arising out of supersonic transport travel as air traffic control, sonic booms and passenger acceptance could be defined and resolved. The B-58 test airplane, with development work on the B-70 bomber being done for the Air Force by North American Aviation, Inc., could provide a new supersonic transport by about 1965, Patton said.

Business Liaison Officer Appointed

C. A. Ford, manager of material, has been appointed Convair FW small business liaison officer.

Ford will be contact between all procurement activity at this operating division and officials of the Small Business Administration, Convair Vice President and FW Manager Frank W. Davis said in making the appointment.

Backlog of Atlas Test Experience Gets Credit For Missile Success

More than 10 million manhours have been put into the flight test program for the Atlas missile in the past four years, W. W. Withee, senior assistant chief engineer at Convair Astronautics, reported recently.

In addition, he said, other millions of manhours have gone into the captive test program.

This heavy emphasis on testing has been a prime factor in the high reliability of Atlas missile, Withee told businessmen attending the American Management Association meeting in New York City.

Convair Astronautics builds Atlas for the U. S. Air Force and also is responsible for flight and ground testing of the missile during its research and development stage.

The first testing of complete Atlas hardware—in captive (nonlaunch) test stands—began in mid-1956.

Withee said the Atlas has been fully successful in about 85 per cent of the 55 research and development flights that have been conducted at Cape Canaveral since 1957.

In addition to its 10 million manhours in research and development flight tests, Convair-Astronautics has put more than two million manhours into Atlas training flights for the Air Force at Vandenberg Air Force Base.

"It is this great backlog of test experience and skill which has given Atlas such a high percentage of success in its launchings," Withee said.

As assistant chief engineer for test at Convair Astronautics, Withee directs all Atlas static and flight test operations at the Atlantic Missile Range, Cape Canaveral; Sycamore Canyon test site, near San Diego; Missile Static Test Site, Edwards Air Force Base, Calif., and directs Convair operations at Vandenberg AFB.

Static tests are confined largely to the Sycamore and Edwards sites, where Atlas missiles are "ground-flown" repeatedly to prove out design innovations for flight missiles.

More than 2,200 persons are directly involved in Atlas static and flight test functions. Included are 260 engineers at the home plant in San Diego who are responsible for planning Atlas tests, evaluating test results, and coordinating off-site test operations.

Astronautics, besides producing Atlas for the Air Force, is developing the powerful Atlas-Centaur space vehicle for the National Aeronautics and Space Administration.

The Atlas-Centaur features the basic Atlas ICBM as first stage and a Convair-built second stage employing the first use of liquid hydrogen rocket engines in the U. S. The engines, capable of significant power increases over those burning present chemical propellants, were developed for the Centaur vehicle by Pratt & Whitney Aircraft.

The Atlas-Centaur, scheduled for first flights in 1961, will be the first U. S. space vehicle capable of exceeding the payloads of the Russian sputnik rockets.

Giant New Hand-Tracing Mill Installed to 'Hog' SD Forgings

One of the largest hand-tracing profile mills used in the airframe industry was installed early this month at Convair San Diego.

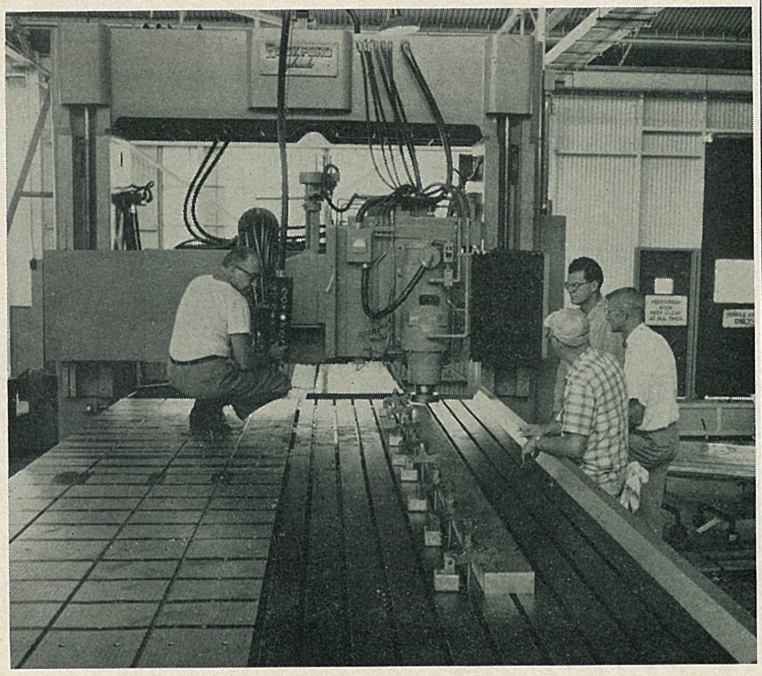
The 67,000-lb. milling machine, built to Convair SD specifications by Rockford Machine Tool Co., Rockford, Ill., will be used for rough milling, or "hogging," to size large aluminum alloy forgings for Convair's jet transports.

It is located at Col. C-2 in Bldg. 1 at Plant 1 where it will be operated by Dept. 115 machinists under Frank Garrison, foreman.

Faster and more accurate than milling machines now in use, it will trace to accuracies within plus or minus .004 of an inch. Unlike other airframe milling equipment, it can make straight passes either direction, longitudinal or transverse, without use of a template. The bed of the mill will take parts up to 4 by 16 feet in size. An adjustable control pendant allows the operator to manipulate operations from any position.

The machine can remove 150 cubic inches of aluminum alloy per minute on straight line cuts. Following roughing, parts also can be finished on the same machine.

A second mill of same size and type has arrived in the plant to be positioned alongside of the first, now going into use.



BIG MILL—Huge hydraulic milling machine now in place in Bldg. 1 at Convair SD Plant 1 is being installed by Robert Francis, Rockford Machine Tool Co. field service engineer (on bed); D. E. Hoyt, Dept. 25 mechanic; John Huss, SD facilities engineer; and Bob Haltmeier, Dept. 25 mechanic.

DR. LONG JOINS GENERAL ATOMIC

SAN DIEGO—Dr. Earl A. Long, one of the country's leading authorities on low-temperature physics, has joined General Atomic as assistant director of the John Jay Hopkins Laboratory for Pure and Applied Science.



WELCOME—Air Force officers recently arrived at Astronautics for Air Force Training With Industry program are welcomed by J. R. Dempsey, division manager. They are Majors Jack Hunter, left, Martin Kahel, Boren Green and Bill Sprinkle.

Astro Greets Four AF Officers; Will Receive Industry Training

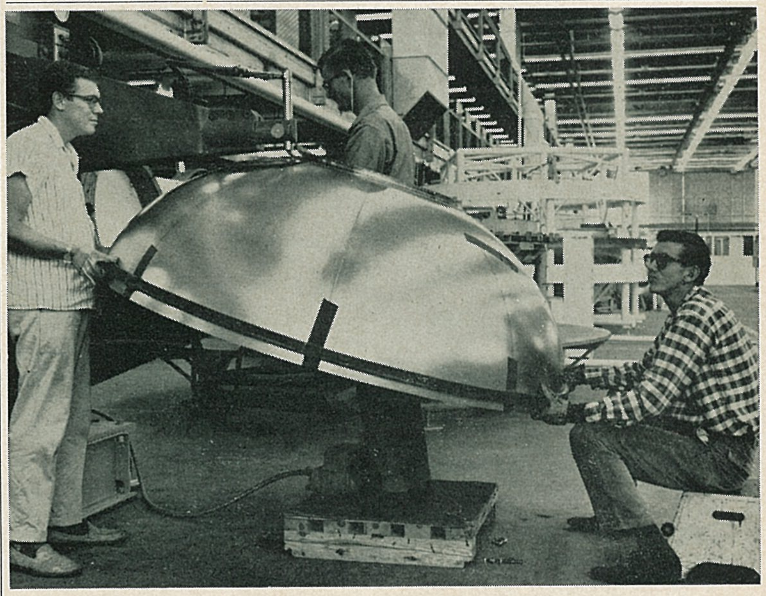
Four Air Force officers participating in this year's Air Force Training With Industry program recently reported to Convair Astronautics.

Maj. Jack Hunter and Maj. Boren Green will receive junior executive training in astronautics and space vehicles. Their course will run a full year.

Maj. Martin Kahel and Maj. William Sprinkle will participate in an executive level program to familiarize them with management structure, engineering and production approaches related to astronautics and space vehicle development. These officers will be at Astronautics for nine months.

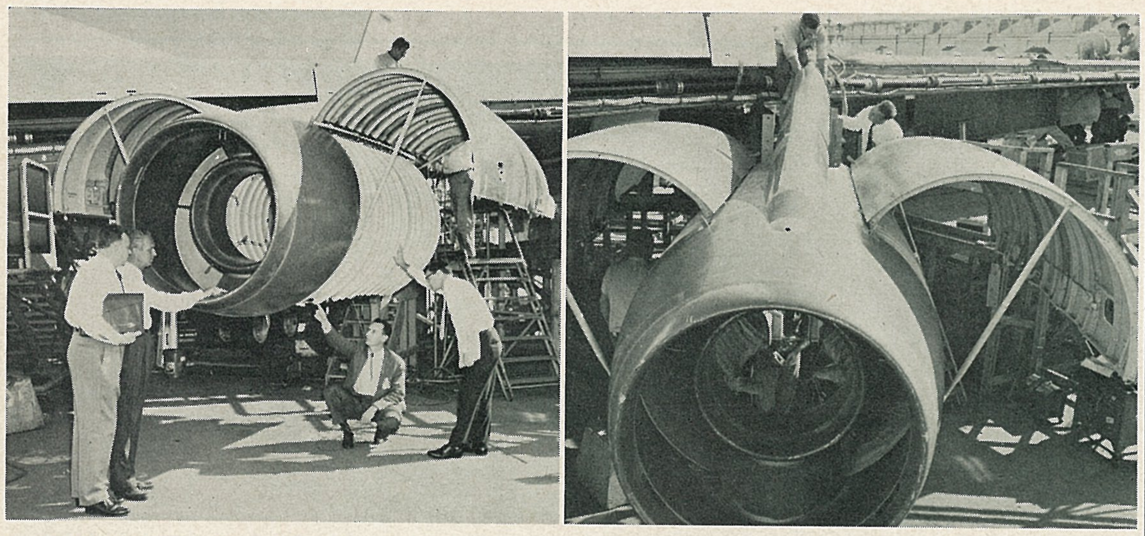
The program's prime objective is to give participants a clear and accurate picture of Astro's activities and capabilities.

When they return to the Air Force next year, they will be assigned to executive and administrative positions at such Air Force activities as Ballistic Missile Division where they will deal with missile and space vehicle projects.



PETTICOAT?—No hoop-skirt, but internal bulkhead for Atlas missile is shown here as R. L. Feener, Dept. 758, center, completes seam spot-welding. J. Engleman, left, and A. A. Lindsey support "skirt." Photo was shot at San Diego Plant 2 by Astro cameraman Tom Mehnken.

Page 2



PODS MATED—Examining first engine pod to go onto No. 1 Convair 600 jet transport now in final assembly are American Airlines representatives, from left, Rolf Nielsen, J. E. Graffius, C. L. Richmond, and B. J. Hickman. Nielsen and Hickman are structures engineers from Tulsa, Okla., headquarters; Graffius and Richmond are based at Convair as customer representatives.

Pods, Speed Capsules To Distinguish '600'

Convair's first "600" jet transport is getting the "new look" which will distinguish it from Convair's other jetliners—the 880 and its modified versions.

Now in place on the No. 1 600, in final assembly outside Bldg. 2 at Plant 1, are the four large pods to accommodate the General Electric CJ-805-23X aft-fan power plants. The pods are almost half again as wide as the 880 pods with the addition of 10-inch-wide ducts around engine nacelles. Pods and pylons were assembled in Plant 1's Dept. 140.

Canoe-shaped anti-shock bodies (or speed capsules) are going onto the wings in culmination of Convair SD's new aerodynamic concept which will permit the Convair 600 to fly at near-sonic speeds. All four of the large tapered shells, two on each wing, were conceived to reduce drag from shock waves across the wings of the jet craft. The 600 will have a maximum cruise speed of close to Mach .91 or about 635 mph.

The capsules also will serve additional duty as extra fuel tanks, each holding approximately 300 gallons.

Also mated to the new Convair jetliner are the leading edges and slats to permit low landing

(Continued on Page 2)

C-V CONVAIR

Published every other Wednesday.

GD GENERAL DYNAMICS

Convair Division of General Dynamics Corporation.

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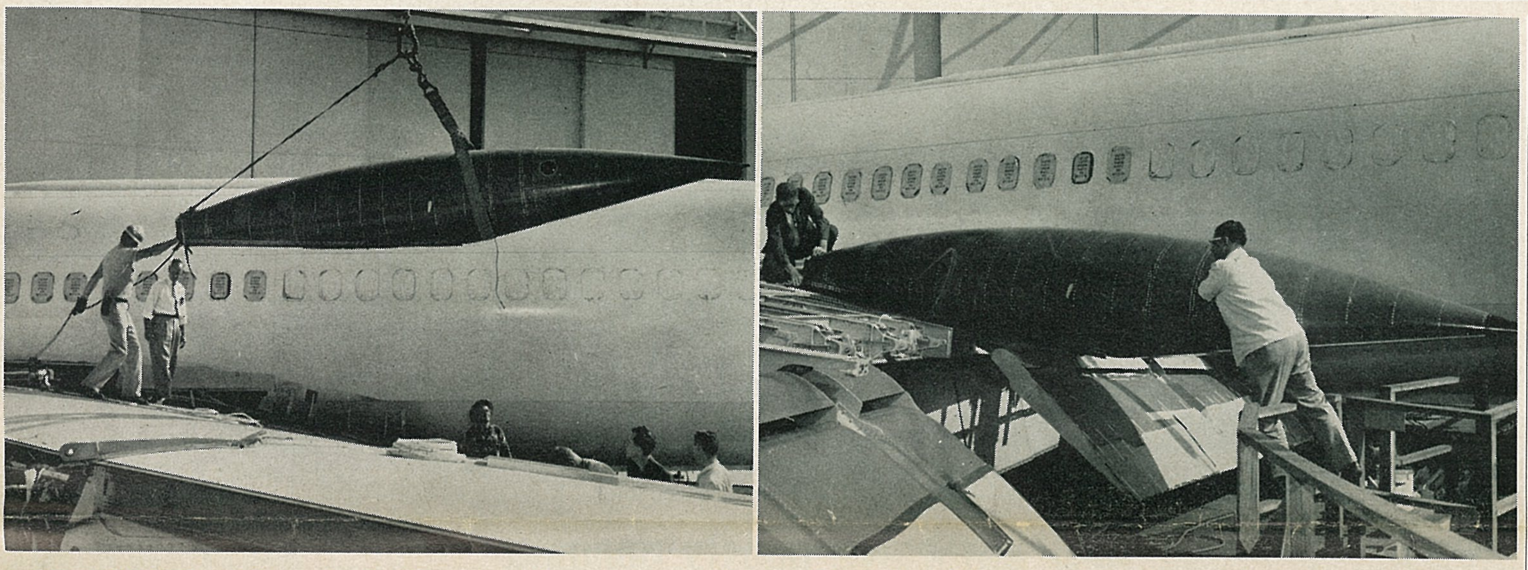
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Vol. 13, No. 23

Wednesday, November 9, 1960

SAN DIEGO, POMONA, ANTELOPE VALLEY, CALIF. ASTRONAUTICS OFF-SITE BASES, FORT WORTH, TEX.



SPEED BODIES—Going onto first Convair 600 are unique anti-shock bodies, commonly known as "speed capsules," designed by SD engineers to reduce drag by breaking shock waves during flight. Pod-shaped capsules, two to a wing, extend beyond wing's trailing edge. Inboard capsules are 22 feet in length; outboard, 24 feet, 6 inches. Besides permitting faster speed for Convair's newest jetliner, they provide additional fuel capacity, each carrying 300 gallons.

New Autoclave Boosts Bonding Capacity at SD

In expansion of bonding capabilities to handle honeycomb assemblies for Convair 600 jet transports at Convair San Diego, a large new autoclave and platen bonding press are going into operation this month in Bldg. 3, Plant 1.

The new 30-foot-long autoclave and its overhead monorail transfer system will more than double bonding capacity, said H. A. Smith, SD chief plant engineer. The autoclave was built to Convair specifications by Southern Engineering & Construction Co., Inc., Long Beach, and the transfer system by American Crane and Hoist Co. of Downey, Calif.

Designed by SD plant engineering, the electrically-controlled monorail system eliminates manual handling of heavy parts going into the oven for bonding. Two men now will be able to move parts weighing several hundred pounds in and out of the oven by means of the trolley load frames attached to steel trays with removable wheel assemblies. Present method of pushing heavy carts on rails into the existing autoclave often requires as many as eight or nine men.

(Continued on Page 2)

'Past, Present, Future' Topic For Club Talk

C. Rhoades MacBride, General Dynamics executive vice president, will discuss "General Dynamics — Past, Present and Future" at the Nov. 16 meeting of the Convair SD Management Club.

Sponsored by tooling department, the meeting will begin with a 5:30-6:30 p.m. social hour in the El Cortez Hotel Caribbean Room.

The evening's principal speaker was appointed General Dynamics executive vice president in March of this year after serving as senior vice president for operations since April, 1959. He joined the Corporation in January, 1958, as vice president for operations.

MacBride, a native of Chicago, Ill., studied economics and metallurgy at Lehigh University. He was a partner in the business consulting firm of Robert Heller and Associates before joining General Dynamics.

Management Club members can obtain tickets for the meeting, priced at $2.25, at the usual outlets. Also on the program will be presentations of four Mac-Save-it awards and the Mug of the Month.

Discounts Offered On 'Picnic' Tickets

Convair SD theater-goers may still purchase discount tickets to the Old Globe production "Picnic" at SD employee services until next week (Nov. 17).

Prices made available by CRA are $1.50 for $2.50 seats, and $1 for regular $2 seats. Convair night is set for Sunday (Nov. 20).

Revised SD Engineering Design Release System In Effect on Jetliners

Installation of a revised engineering design release system for Convair's commercial jet transport program has been announced by R. C. Loomis, Convair vice president and San Diego manager.

Objective of the system, coordinated by SD systems and procedures, is to facilitate flow of engineering data from the point of design through every phase of development to point of final release and blueprint availability.

Engineering department at Convair SD is committed to the release of approximately two-thirds of its design tasks on an average of 19½ M-days per task. Other SD departments have instituted parallel systems to expedite translation of design into hardware.

"This will eliminate the present procedure for starting procurement, tooling, and manufacturing action based on pre-release of designs," explained Loomis, who pointed out that this preliminary activity proves costly, both in duplication of effort and from effect of changes in procurement, tooling, and manufacturing commitments made necessary by changes in final design releases.

"At the same time, however, judicious use of advance bill of materials (ABMs) on a selected basis as the design proceeds will permit early procurement of critical long lead-time material where the design of such material is firmly established. Final lead time to production will thereby be reduced," he emphasized.

Qualified representatives from each company function involved in activation of new or changed commercial transport designs are assigned to work closely with engineering design groups to coordinate procedures during development of designs.

"This assures development of design sequences and schedules compatible with subsequent action," continued Loomis.

Working as consultants with engineering designers are liaison men from tool engineering, material, customer service, and manufacturing control. During the design period they continuously review design data for all possible refinements, supplementary data requirements, changes and corrections before final release.

"By securing advance knowledge during development of designs, such wasteful and costly factors as surplus, scrap, and rework items can be substantially reduced," said D. L. Johnson, manager of systems and procedures, whose department was given the task of outlining operational control procedures.

To date, division-wide effort has advanced time of final engineering design release by an average of approximately three weeks.

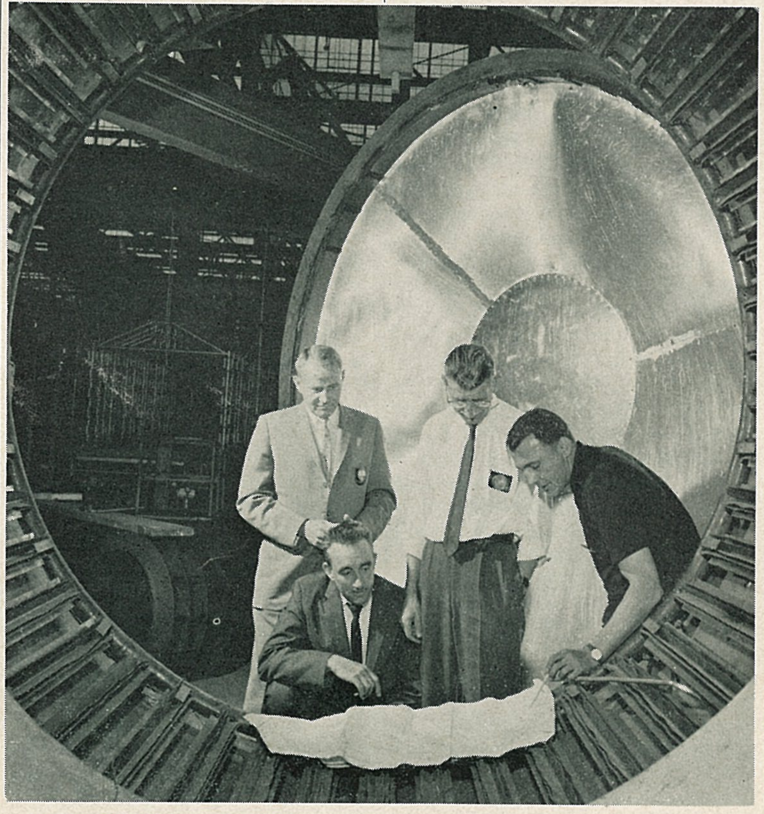
Cafeteria to Serve $1 Turkey Nov. 22

Turkey and all the trimmings will be the menu for the day at Convair San Diego cafeterias Tuesday, Nov. 22.

Annual Thanksgiving dinner will be served at Plant 1 and Plant 2 cafeterias at special price of $1. Menu will include turkey and dressing, potatoes, gravy, peas, salad, pie, and a drink.

SD's Salvage Store Open Nov. 12 and 26

Coming sales days for employees' salvage store at Convair San Diego will be Nov. 12 and Nov. 26. The salvage store, near Gate 5 at Plant 1, is open on alternate Saturdays from 7:30 a.m. until noon.



BIG CHAMBER—Checking new autoclave during acceptance tests in Bldg. 3 at Convair SD Plant 1 are (from left) R. J. Campbell of SD purchasing; W. G. Watts, district manager of Southern Engineering and Construction Co. (kneeling); Charles Giusti of SD plant engineering; and R. F. Morehead, Southern Engineering and Construction design engineer.

Log Book Entries

Service Emblems

SAN DIEGO

Service emblems due during the period Nov. 1 through Nov. 15.

Twenty-five-year: Dept. 6-03, J. C. Hoover; Dept. 215, M. J. Willows; Dept. 401-0, R. H. Harshaw.

Twenty-year: Dept. 6-53, J. O. Pike; Dept. 8-0, R. E. Bechtol; Dept. 15, F. N. Greif, H. M. Garber; Dept. 21-2, C. T. Neff; Dept. 24-2, A. A. Perry; Dept. 25-9, K. L. Gardner, R. L. Lewis; Dept. 31, H. J. Beshansky; Dept. 129, D. R. Wilson; Dept. 138, M. M. Lopez; Dept. 188-5, C. W. Carter; Dept. 216, Herschel Hise; Dept. 249, R. W. McDaniel; Dept. 400-1, M. M. Hill; Dept. 401-8, F. W. Walrod.

Fifteen-year: Dept. 1-61, Irma M. Rutherford; Dept. 14-1, J. B. Thompson; Dept. 24-1, F. M. Meth; Dept. 101, Mary M. Muir; Dept. 110, Archie Peavy; Dept. 116, Edith O. Barnes; Dept. 148, Carle Cattani; Dept. 188-6, A. J. Gagliardo; Dept. 190, K. R. Meli; Dept. 206, E. B. Green; Dept. 292-1, W. E. Love.

Ten-year: Dept. 1-23, R. W. Young; Dept. 1-68, J. J. Walden Jr.; Dept. 3-1, R. E. Hall, D. F. Harris, G. C. Tweed, T. A. Szalinski; Dept. 4-0, L. T. Betts; Dept. 6, J. W. Ball, W. M. Bowlin, W. S. Cronan III, J. W. Currie, J. M. DeBevoise, C. S. Dickerson Jr., J. H. Dowdy, W. S. Evans, J. H. Mason, H. F. Mohrlock Jr., Ruth H. Ortega.

Dept. 7, W. H. McGee, J. W. Watanabe; Dept. 14, R. E. Cloud, R. W. Zastoupil; Dept. 15, D. C. King-Ellison, L. H. Norwood; Dept. 25, W. C. Bergner, C. M. Clark, L. V. Henson, A. H. Juhls, G. L. McDonaugh.

Dept. 31, J. C. Anderson, C. J. Carter, T. L. Edwards, W. Levendowsky Jr., Manuel Leyva; Dept. 34-1, H. D. Johnston, H. D. Smith; Dept. 44-4, Viola H. Mannweiler; Dept. 91-7, J. M. Lestrans, H. J. Woods; Dept. 101, Irene P. Baumgarten, Harold May, Lillian M. Murvine, F. E. Robare, G. C. Ross.

Dept. 115, Alice M. Crank; Dept. 119, F. O. Vogt; Dept. 120, Frank Sceppe; Dept. 123, L. L. Silva; Dept. 133, Alice G. Espinosa, W. E. Nolte, Margaret S. Pickens, Marian I. Simon; Dept. 134, Harry Sills; Dept. 135, R. W. Johnson, A. L. Meriwether, J. W. Norwood.

Dept. 136, R. H. Valusek; Dept. 138, M. T. Harrison, Alonzo Horn; Dept. 140, R. V. Garcia, Thyra H. Grantham; Dept. 142, Aileen Barrios, Nettie V. Castro, Rose D. Goins, Paula C. Nelson, E. R. Penney, Adelina K. Silva.

Dept. 145, W. J. Bonventre, J. D. Chadwick, Francisco Hernandez, D. U. Zamora; Dept. 146, S. E. Campanella, G. R. Frederick, C. H. Jorgensen; Dept. 148, S. A. Castro, J. J. Daigneault, E. L. Darden, Vera P. Goss, L. H. Katz, C. W. Lester, E. W. Parks, J. F. Patterson.

Dept. 170-0, J. F. Herr; Dept. 171, R. R. Finch, E. E. Quick; Dept. 180, J. W. Brett; Dept. 188, William Carrasco, C. R. Lind, C. J. Polvino, Helen S. Tripp; Dept. 197-1, P. E. Moore; Dept. 204, J. J. Castelo; Dept. 215, J. H. Blake, F. E. Bouton, F. W. McGovern, L. O. Stackhouse; Dept. 216, Marjorie N. Brockway; Dept. 217, Hazel C. Spain.

Dept. 231, L. B. Aufdengarten, N. B. Olney, E. J. Sparks; Dept. 232, Lois H. Edwards, Helen J. Suarez; Dept. 233, R. C. Chavez, C. R. Van Winkle; Dept. 249, O. M. Bishop, B. G. Boyd, W. B. Goon, Angelita M. Reyes; Dept. 267-0, V. R. Bibb.

Dept. 280, S. R. Black; Dept. 288, L. G. Brenn, A. E. Gagnon; Dept. 292-9, Flora G. Johnson; Dept. 400, W. C. Bouchey, H. G. Cooper, Gladys B. Fligel, T. M. Roush; Dept. 401, S. E. Belsh, Rosalie B. Buckman, W. E. Daenzer, Clyde Humdy, A. P. Janne, G. S. Johnson Jr., E. F. Madden, Helen T. Thompson.

HOLLOMAN

Twenty-year: Dept. 313-0, A. T. Landry.

Promotions

SAN DIEGO

Promotions to or within supervision effective Oct. 24.

Dept. 6, Engineering: To chief of engineering flight test, V. L. Allwardt. To engineering release supervisor, A. J. Garcia Jr., M. C. Todd.

Dept. 7, Electronics: To chief of electronics research; A. S. Dunbar. To engineering administrative supervisor, H. C. Murray.

Dept. 31, Experimental: To asst. foreman, R. J. Hogan.

Dept. 44-2, Material Control: To GFE asst. supervisor, D. E. Griffin.

Dept. 190-4, Applied Manufacturing Research & Process Development: To factory methods supervisor, N. P. Pearson.

Retirements

SAN DIEGO

BLOMQUIST—Ben H., Dept. 101. Seniority date Sept. 23, 1953, retirement effective Oct. 24, 1960.

GRANT—James H., Dept. 14-6. Seniority date July 12, 1956, retirement effective Oct. 21, 1960.

HARTZLER—Edwin E., Dept. 8-4. Seniority date Aug. 8, 1950, retirement effective Oct. 21, 1960.

MAGER—Ernest, Dept. 6-05. Seniority date Oct. 9, 1950, retirement effective Oct. 21, 1960.

MOORHOUSE—Minnie W., Dept. 216. Seniority date Dec. 20, 1950, retirement effective Oct. 25, 1960.

MORGAN—Agnes M., Dept. 401-7. Seniority date Oct. 12, 1950, retirement effective Oct. 28, 1960.

RICHARDS—William P., Dept. 6-31. Seniority date Oct. 1, 1951, retirement effective Oct. 7, 1960.

Personals

SAN DIEGO

We wish to express our thanks and sincere appreciation to Convair friends for the beautiful flowers and many acts of kindness at the death of our husband and father.

Elsie Robbins (Dept. 192-6) and family.

Deaths

SAN DIEGO

AMES—Adelbert T., Dept. 400. Died Oct. 21. Survived by wife, Alice N.; sons, Richard and George; daughters, Phyllis and Margaret.

McCABE—John Daniel, Dept. 400. Died Oct. 30.

Pods, Speed Capsules To Distinguish '600'

(Continued from Page 1)

speeds.

After leaving final assembly at Plant 1 the plane will go to structures test lab at the SD seaplane ramp for vibration tests before going into field operations and preparation for first flight.

Also destined for structures lab is plane No. 3, now in final assembly at the SD plant. It will be the proof load article for a several-month testing program.

Two other 600s, all part of American Airlines' order of 25 of the sophisticated jetliners, are shaping up on the production line with No. 2 also in final assembly and No. 4 in major mate. Wings for the fifth 600 are in wing bucks in Bldg. 2.

In final assembly inside Bldg. 3 is plane No. 41 of the 880 program, slated for Delta Air Lines' tenth 880. In 880-M production are two of the modified versions, including the Asiatic version for Civil Air Transport of Formosa, now in wing primary.

Engineering Flight Test Chief Appointed

V. L. Allwardt will be responsible for both commercial and military flight test and instrumentation programs at Convair San Diego with his recent appointment as chief of engineering flight test.

Former F-102A project manager at Edwards AFB from June, 1957, to Oct., 1959, Allwardt has been senior flight test group engineer in the commercial transport program at San Diego during the last year.

He joined Convair SD in flight research in 1943 and moved to Edwards as flight test group engineer at the start of the F-102 program in 1953. He was chief flight test group engineer there from 1955 until he was named project manager.

Operating Controls Chief Named at SD

J. B. Henn has been named chief of operating controls and standards at Convair SD, announced R. C. Loomis, Convair vice president and SD manager.

Henn will report to R. M. Hatcher, manager of applied manufacturing research and process development at SD.

He joined Vultee Aircraft Corp at Downey in 1946 and transferred to San Diego in industrial engineering the next year. Except for four years, from 1948-1952, when he was with Ryan Aeronautical Co., and George S. May Co. in San Francisco, he has been with Convair SD as an accounting supervisor.

★ Convairiety ★

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SD Editorial Offices, Building 32, Plant 1, ext. 1071. Staff: Grayce Fath, Helen Pemberton, Fred Bettinger.

Astronautics Editorial Offices, Bldg. 8, Astro site, ext. 3322. Staff: Bryan Weickersheimmer, news editor; Willard Harwood.

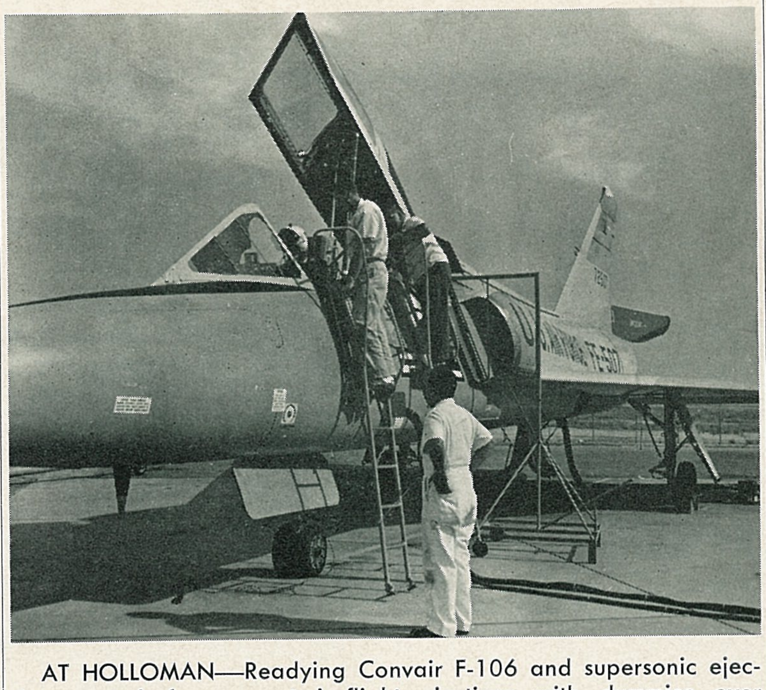
FW Editorial Offices, Col. 73C, ext. 2961. Mailing address: Convairiety, Convair, Fort Worth, Texas. Telephone PErshing 8-7311. Staff: Dave Lewis, news editor; Louise Sutton, Mary Beck.

Pomona Editorial Offices, Room 106-D, Bldg. 1, ext. 6226/5279, mail zone 3-3. Staff: James Combs Jr., news editor; Dorothy Keller.

Palmdale news representative, CRA office, Room 36, Bldg. 301B, ext. 331, Palmdale facility. Holloman: O. J. Ancel, industrial relations, ext. 20, Holloman AFB.



UP—AND OUT—Poised for ejection from F-106 in recent flight tests at Holloman AFB is dummy in Convair-designed supersonic ejection seat. New concept propels pilot and seat vertically from cockpit. Seat, balanced with booms (visible in shot above), rotates to horizontal position to protect pilot from wind blast forces as he is pushed out at high altitudes.



AT HOLLOMAN—Readying Convair F-106 and supersonic ejection seat before recent in-flight ejections with dummies over Holloman AFB, N.M., are Convair mechanics and inspector (on ladders), Forrest Denick (Dept. 313-4), H. W. Strong (Dept. 313-3), and (on ground) R. A. Romo (Dept. 313-4). Maj. Dan Hendrix, AF pilot who flew plane during tests, is in cockpit.

Posts Filled In Electronics

Three electronic specialists have joined Convair SD recently to head up newly-organized functions within SD electronics department, announced R. E. Honer, manager of SD electronics.

They will all report directly to E. C. Oertel, chief electronics engineer.

A. S. Dunbar, former manager of electromagnetics research of Lockheed's Missiles and Space Division, was named chief of electronics research at SD last month. His previous experience includes positions as assistant to the vice president-engineering and manager of advance technical planning for Dalmo Victor Co., Belmont, Calif. From 1943 to 1953 he conducted antenna and microwave studies at MIT Radiation Laboratory, Cambridge, Mass., Naval Research Laboratory, Washington, D. C., and Stanford Research Institute.

Dr. Donald Wahl is now chief of electronics systems in charge of electronics design and development groups at Convair SD. He came to Convair from ACF Electronics, Paramus, N. J., where he was laboratory manager in charge of development of microwave, navigation, and infrared equipment.

Chief of electronics reliability is R. J. Cary Jr. His duties are to supervise reliability activity of SD electronics, including parts application, analysis, test, value engineering, reliability and failure analysis, engineering standards and specifications, and test lab.

Before coming to Convair Cary was with RCA, Van Nuys, Calif., as leader of the parts application and reliability group.

New Autoclave Boosts Bonding Capacity For Convair Jetliners

(Continued from Page 1)

Also, trays carrying the tools and honeycomb parts can be stacked three deep in the new steam-operated autoclave. Thus, as many as 30 small parts, each with its own vacuum and vent connection, can be processed at one time. If necessary, the autoclave can hold a part 28 feet in length.

The existing electrically-operated autoclave, in use at SD for several years, will be raised to the same level as the new and larger one so that the transfer system can be used for both, explained C. U. Giusti, senior plant engineer in charge of installation supervision. One operator can control processing in both ovens.

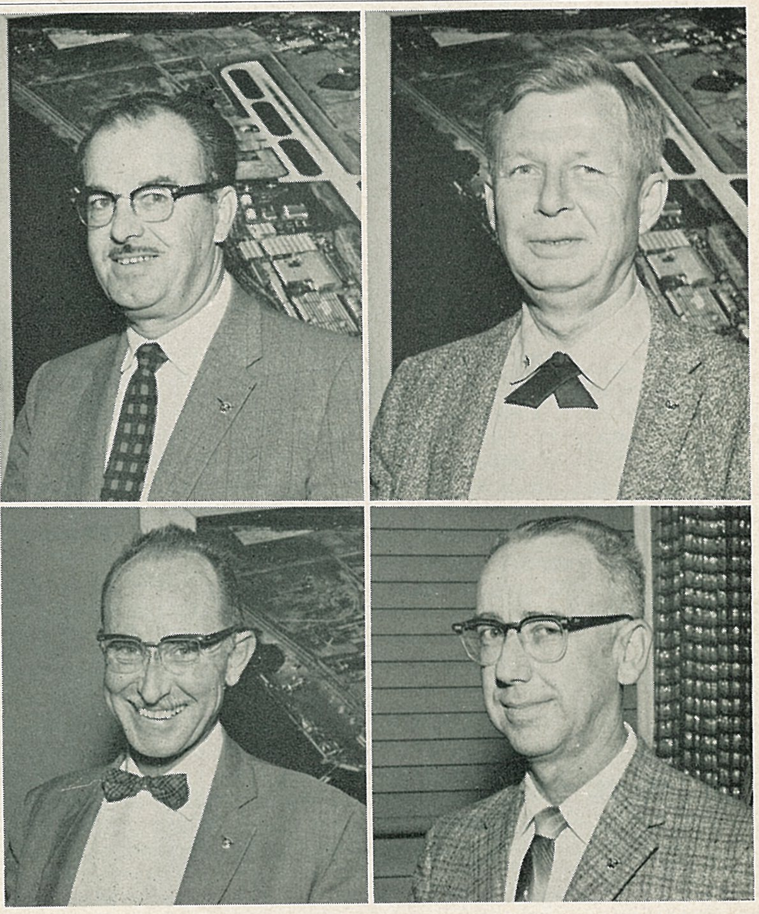
Temperature and pressure ranges are identical for both. They can bond metal parts within a heat range from room temperature to 400 degrees F. and pressure from atmospheric to 200 psi.

"In an application of a principle new to this type of operation, one compressor is used to compress both air and steam," said Smith. "At the boiler 150 psi steam is generated to 280 psi to maintain 400 degrees F. inside the autoclave. With the same compressor factory air at 90 psi is compressed to 205 psi to maintain 200 psi within the autoclave."

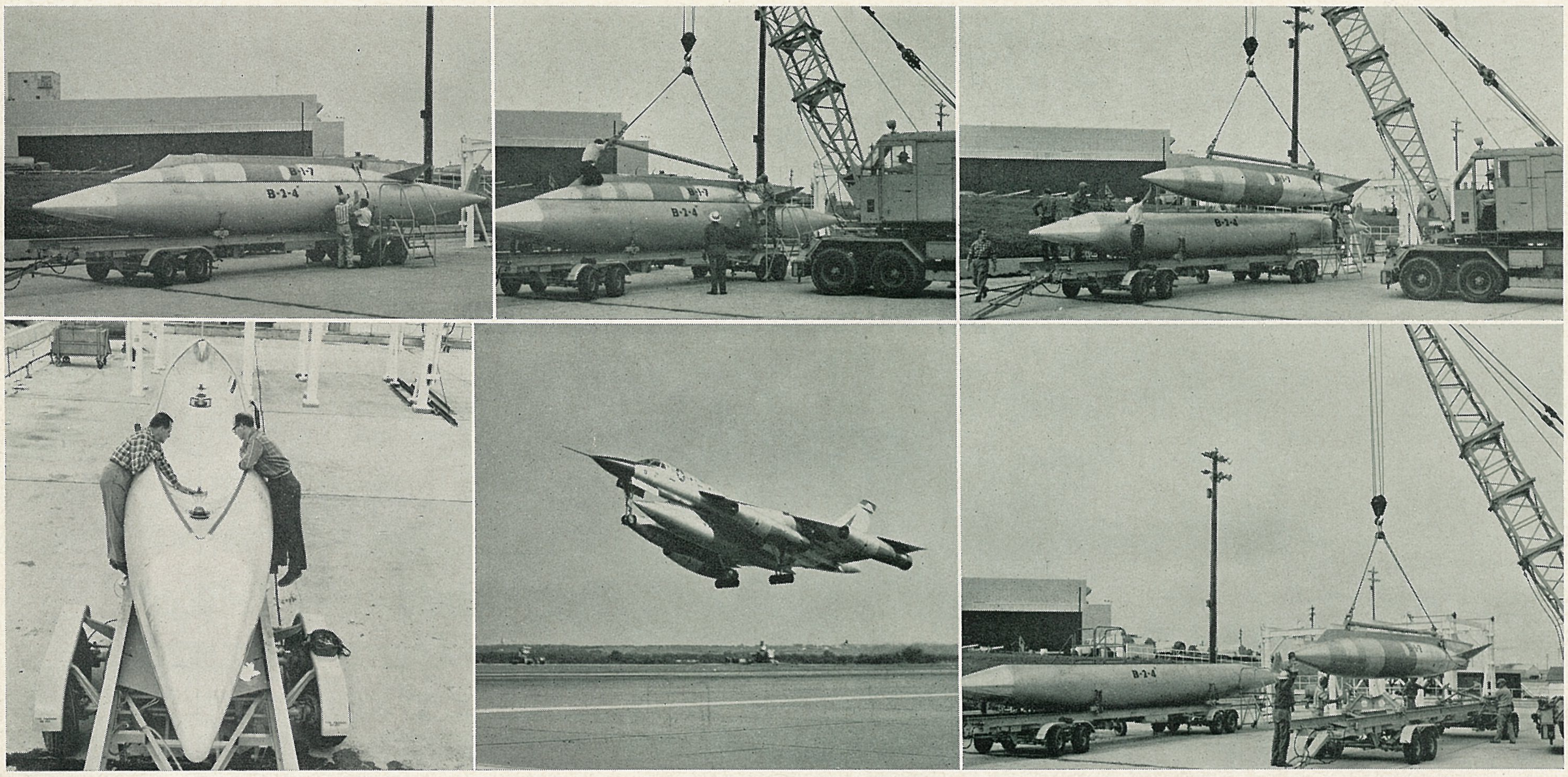
Already in use is a 6x18-ft. bonding press suitable for processing parts less than 12 inches in height. Obtained from Convair Fort Worth, the press has been converted to SD's needs. Temperature maximum is 350 degrees F. and pressure, 175 psi.

M. F. Link, Dept. 119 foreman in charge of SD metalbond fabrication and assembly, said that Convair 600 honeycomb bonded assemblies going into the ovens will include such major components as wing trailing edge panels and control systems — flaps and foreflaps, spoilers, ailerons and aileron tabs — as well as splitter assemblies for engine fan ducts.

Installation of the newly-acquired bonding facilities completes equipment designed for bonding operations for the jet transport program. Already in place in the large enclosed dust-free area at the south end of Bldg. 3 is the process cleaning system, dry-off oven, and layup area adjacent to location of the autoclaves and bonding press. (Convairiety, Sept. 28.)



ANOTHER MILESTONE — This foursome last month joined the ranks of Convair SD's "Quarter Century" club. Reading left to right, top row, E. D. Robinson, Dept. 100; G. J. Kick, Dept. 400-3; lower, N. V. Davidson, Dept. 15-6; A. C. Thurber, Dept. 6-03.



EASY DOES IT—Best photo series yet (taken by FW Cameraman Ernie Lain) explains B-58's two-component pod and how units fit together. At lower left H. R. Bissell and H. R. Evans, engineers, inspect canoe-like lower pod. At far right and top, "warhead-carrying" upper pod is lowered into place. Center below, B-58 takes to air carrying TCP. Lower pod is used for fuel; upper pod carries nuclear bomb. They are designed as "pod-within a pod."

'Bomb-Load' Techniques Adopted at Fort Worth To Join Pod Components

B-58 ground crews are learning new "bomb-loading" techniques, simply because the Hustler's two-component pod (TCP) is something "new" in the way of bombs.

The familiar B-58 MB pod has been redesigned into a sort of pod-within-a-pod, explains H. R. Bissell, senior flight test engineer.

"Lower pod is used solely for fuel," he said, "while the smaller upper component carries the nuclear bomb.

"On a combat mission, the Hustler would first use the fuel in the lower component, then drop it from the plane, sending the B-58 on to the target with less drag, thus enhancing the Hustler's range and altitudes."

But getting the "little" 9,000-pound upper component into the "saucer" of lower component is a new step for ground crewmen. They have solved the problem by using a standard crane.

"Both upper and lower components rest on storage trailers, adaptable to either component," Bissell said.

"By using a loading beam adjustable to pod center of gravity, the crane operator lifts the upper component and eases it gently in the saucer of the lower component.

"Crewmen then secure releaser mechanisms at either end, which locks the two components securely together."

The mated TCP is quickly transferred to a positioning trailer, which is used in fastening the lethal pod under a B-58.

"Actually," Bissell pointed out, "the upper component carries some fuel in its forward and aft sections, where it is inter-connected with the lower component. The warhead is carried in the middle portion of the upper component."

Education Services Aids Attend Parley

Educational services personnel from Convair SD are attending portions of the Ninth Western Training Conference which started today (Nov. 9) and runs through this Friday at the Statler Hilton Hotel in Los Angeles.

The SD representatives are attending sessions directly related to their specialties in order to keep them up to date on new research, planning and appraisal in the training field, said M. S. Lachman, educational services supervisor.

The conference is under sponsorship of the Los Angeles Chapter of the American Society of Training Directors.

Higgins Secretary Of Security Group

George D. Higgins, Convair director of industrial security, early this month was elected secretary of the American Society for Industrial Security.

Eric L. Barr Jr., retiring ASIS president and industrial security manager at General Dynamics' Electric Boat Division, was elected chairman of the board of directors.

Europe-Built Parts Reach SD by Sea

First European-built parts for Convair jet transports were unloaded last week at San Diego docks from the Swedish freighter, Rio de Janeiro.

Eight pressure bulkheads to go into Convair 880s and 600s were swung ashore in the first shipment from overseas. The large dome-shaped components, six feet in diameter, were built by SABCA, Ltd., at Brussels, Belgium.

Radar Checkout At SD Expands

A penthouse-type structure has been completed recently on top of Bldg. 51 at Convair San Diego Plant 1 to expand SD's facilities for radar checkout.

The 80-foot-long building contains four separate rooms for testing and an electrical facilities room which will hold generators and distribution panels. On order are two generators, one a 400-cycle, three phase, 208-volt AC; and the other, a 200-amp., 28-volt DC. Other equipment, as needed, is being moved into the new facility from electronic laboratories in Bldg. 51.

Plexiglass picture windows, 7½ feet square, two in each room, allow visual checks on targets on the west side of the building. A six-foot-wide loading dock runs along the east side of the structure.

The new building, constructed by SD plant engineering, more than doubles radar checkout capabilities at the SD plant. The existing 24x26 checkout building will continue to be used for the same purpose.

Barrage of Meteoroids Simulated in Studying Hazards of Outer Space

Seeking some of the answers to the hazards of outer space is a group of Convair San Diego thermodynamics engineers who have been spending many hours during the last year at their lonely outpost "shooting range" at Sycamore Canyon.

During the months of research under a Convair-sponsored program they have been studying effects of hypervelocity impact on different types of materials which could be used for space vehicles. Main objective of their work, explained W. W. Lovelace, senior thermodynamics engineer coordinating the year-long program, is to determine materials, spacings, and configurations which might best stop, or "defeat," solid meteoroids whizzing through space.

"Little is known about the damage actual meteoroids can do to manned or unmanned vehicles of the future," said Lovelace. "We do know that meteoric particles travel just above the earth's atmosphere at speeds of from 35,000 to 200,000 feet per second.

"Minute particles, striking outer space vehicles could wreak catastrophy either by puncturing skins of space ships or by knocking out instrumentation of unmanned satellites."

In the Convair research, thought to be one of the first of its kind into the peculiar problems of meteoroid damage to practical space structures, tiny steel, aluminum, or titanium pellets, some no larger than a ¼-inch nail head, are fired at speeds as high as 20,000 feet per second into various kinds of materials. SD materials technical group developed and supplied many of the target materials.

Giving some indication of the amount of destruction a fast-speeding object can deal out, one small pellet ripped through and exploded a San Diego telephone directory. Another tore through a 2-inch-thick block of phenolic bonded nylon like an ax, and on through an eighth-inch aluminum plate fastened to the back. The nylon blocks are used to simulate re-entry capsules.

Among other targets used to simulate satellite structures were sheets of magnesium, aluminum, titanium, and steel placed at different distances apart. Holes as large as ¾-inch in diameter were punched through the first plate with fragments pitting other sheets placed 6 inches to 3 feet away.

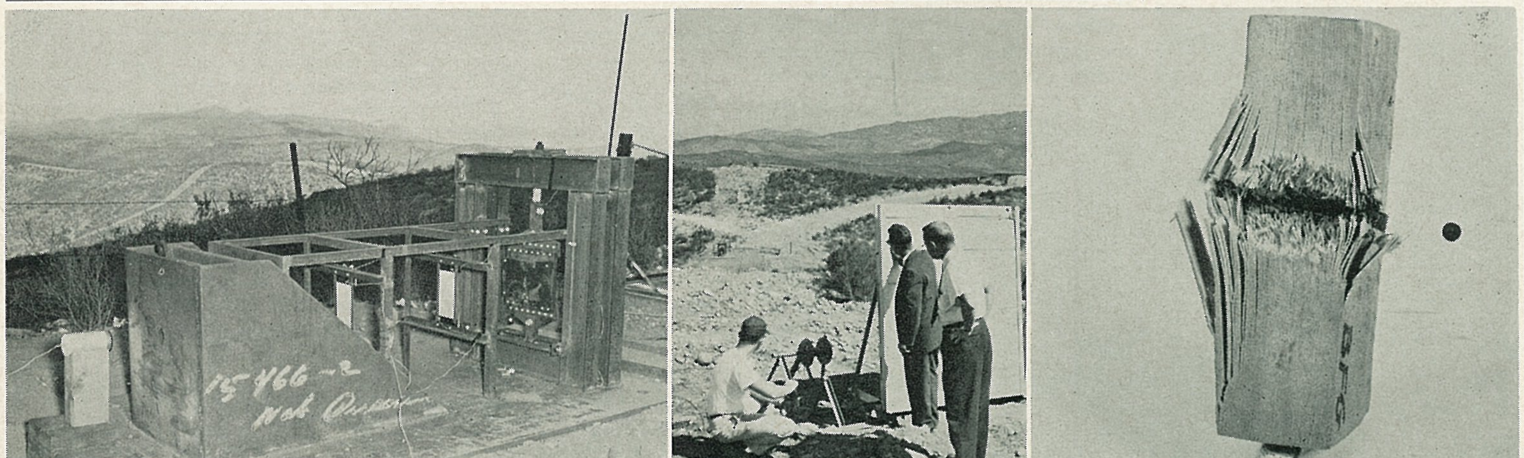
"No one, so far, has been able to duplicate real meteoroids," said Lovelace, "But by understanding the mechanism of impact of pellets shot at different targets, we can, to some extent, begin to understand actual effect."

Test engineers in charge at the test facility, W. A. Smith, senior thermodynamics engineer, and W. D. Stemple, thermodynamics engineer, put the destruction into motion by setting off one-pound explosive charges. These propel pellets, weighing from a half a gram to 10 grams, through a series of baffles which serve as a shield to keep the blast from destroying targets several feet away. The pellet, on its high-speed flight, tears through two sheets of conducting circuit paper which provide signals to oscilloscopes, safe on the hillside out of range, to measure velocities.

About 1,500 rounds have been fired during the last year at the Sycamore test site, said Lovelace who was assigned to the program by Frank Stephenson, chief of environmental analysis section of SD thermodynamics.

Experimental factory technicians of Dept. 31, Harry Anderson and Asa Armstrong, assisted throughout the testing, and W. D. Gosch, thermodynamics engineer, was in charge of data analysis.

Lovelace has presented papers and, more recently, a film on results of SD's hypervelocity impact study. The film, compiled by SD materials technical group, is available to interested groups.



BOMBARDMENT—Studying hazards of space, Convair SD engineers have bombarded materials with simulated meteoroids. Test rig is at left. White cylinder is explosive charge which fires tiny pellet. Center shows personnel retreating to safety during test, (from left) W. W. Lovelace, senior thermodynamics engineer; W. G. Kemmer, SD photo lab supervisor; M. H. Miller of SD still photo lab. Phenolic bonded nylon block, in photo at right, was shredded by ¼-in. pellet. Test site is at Sycamore Canyon, Astro off-site testing base, where firings have been made during last year.



MODERN DAY "REBS"—Only immediate survivors of Yankee Arthur Eugene Gilligan are all Texans now—by choice or birth. By choice are Convair's Art Gilligan, standing center rear, and his sister, Mrs. Newton Jackson, standing left, Convair wife. Standing at right is Art's wife, Mary. Seated are the Union soldier's great-grandchildren: George, 6, Susan, 11; Lorinda, 16, and Erin, 4.

95 Years After

Children Cancel Yank Soldier's Vow to Stay Clear of Texas

Arthur Eugene Gilligan left Texas 95 years ago, vowing never to return.

He was as good as his word, but not so for his grandson and namesake, a material cost coordinator in FW Dept. 4-1 since 1947, and other grandchildren, who treasure his war diary, Bible, guitar and song books, relics of the past.

Grandfather Gilligan was a Yankee soldier, captured and imprisoned at Tyler, so it's understandable he was anxious to return North.

Yet, today, all his direct descendants are Texans!

His only two grandchildren, Art and sister, Mrs. Newton Jackson, wife of a Convair employee, wouldn't think of returning North to live.

The soldier's only four great-grandchildren are all native Texans, and his namesake's wife, Mary, is a native of Tyler and the granddaughter of a Texas Ranger!

Grandfather Gilligan was only 16 when he first enlisted as a member of Massachusetts' Eighth Infantry. He fought in the Union Army's pursuit of General Lee's forces after Gettysburg.

Later, as a member of the 3rd Rhode Island Cavalry, he participated in the so-called "Red River Campaign," planned to cut Texas off from the rest of the Confederacy. Gilligan, then a sergeant, was captured in Louisiana while serving as a courier.

Grandfather Gilligan was freed from the Tyler prison camp (Camp Ford) on May 16, 1865. In his diary that day, he wrote:

"I got parolled in the afternoon. The guards have all deserted but Sweet's men, and they are all drunk, officers and all. In the evening, the band (in which he played guitar) got together and went over to headquarters and played to the Rebs and our officers.

"The whisky was passed around, of which I freely partook."

The Yankee soldier died in 1922 at Pawtucket, R. I.

Promotion Display At FW Best in U.S.

Convair FW's suggestion has created the best in-plant promotional display in the nation for the second straight year.

M. J. Scott, suggestions supervisor, was notified of the honor at the National Association of Suggestion Systems convention in Philadelphia Oct. 31-Nov. 2.

The display, which showed pictures and earnings of Convair's top 10 Employee Suggestion and President Award winners, was exhibited recently in the factory aisle display case.

Two From FW Invited Behind Czech 'Curtain'

United States is ahead of Europe in technical progress.

That's the opinion of E. W. Feddersen, FW's chief of manufacturing research and development, who recently returned from a month's tour of Europe.

Feddersen was one of 21 scientists from throughout the world invited to speak at an international symposium in Prague, Czechoslovakia. Accompanying him was Dr. R. H. Wesley, FW manufacturing research engineer. The two also attended the second International Trade Fair, sponsored by the Czech government.

"I would say U. S. technical progress is equal to or better than the countries we visited. Czechoslovakia, particularly, appeared to be 10 to 15 years behind us.

"However, of course some things are hidden, just as they are in this country."

The two Convair scientists moved behind the Iron Curtain with complete freedom. "But we didn't take any pictures when there were soldiers around," Feddersen said.

Feddersen assumes his invitation from the Czech government was a result of a paper he presented at a scientific forum in New York.

His paper at the Czech conference was "Applying High Energy Rate to Production."

Scientists were present from Austria, Red China, Czechoslovakia, England, Germany, Hungary, India, Italy, Poland and Russia. Feddersen and Dr. Wesley were the only Americans.

"We learned nothing new from the talks," Feddersen said. "I had to agree entirely with one of the Russians when he said 'Everything we heard we could read in technical journals or books.'"

While food and clothing appear to be adequate behind the Iron Curtain, the people don't seem to enjoy life much, Feddersen said.



EUROPEAN PARLEY—Examining punch press in Prague, Czechoslovakia, factory, left to right: Dr. Morris Cockcroft, Glasgow, Scotland; Frank Griffiths of Birmingham, England, E. W. Feddersen, FW chief of manufacturing research and development, and Dr. R. H. Wesley, FW manufacturing research engineer.



BIG JUMP—W. F. Weidenfeller of SD educational services proudly points out to R. F. Campbell, military service parts provisioning supervisor, accuracy improvement after recent paper work quality improvement training.

Errors Substantially Reduced Following Course in Accuracy

A quality improvement training course, formulated by Convair SD educational services especially for people handling and filling forms, has shown that errors can be cut by more than half.

In a trial run, applying the same training procedures used in production areas, SD training specialists recently completed a series of training sessions for 60 military provisioning persons in SD service parts.

After three one-hour classes and comparison of ten-day checks before and after, it was found that accuracy improved 69.5 per cent, reported W. F. Weidenfeller, technical manufacturing development training specialist. During the first check, the average of error was one in every 95 entries. But after the training, the second check showed that the count had dropped to one in every 312 entries.

All persons involved in filling out such forms as spares orders, direct shipment orders, production lists, design change notices, were briefed on the importance of accuracy. Within the various groups, the personnel themselves worked out possible causes, dangers, and remedies. Inattention, carelessness, and poor checking were pinpointed as chief enemies of accuracy.

"Of course, all errors in forms are caught by analysts each day before they are released, but, by increasing accurate entries in the first place, we can save time and rework in expediting necessary paper work," said G. R. Sibley, general supervisor of military service parts.

W. H. Goggin, educational services supervisor directing the manufacturing development training program, said that the quality improvement training is available for any area preparing and issuing paper work in addition to all manufacturing areas.

Engineers to Attend ASTME Conference

Engineers from Convair Astronautics and Convair San Diego will play prominent roles at the Western Conference and Exhibit of American Society of Tool and Manufacturing Engineers (ASTME) in Los Angeles Nov. 14-18.

Alan M. Fullarton of Astro Dept. 752 is on the host committee staff. Exhibit activities will center around the Los Angeles Sports Arena with technical sessions at the Ambassador Hotel.

Two thousand pieces of production equipment and related items and services will be displayed during the conference.

Chance For Survival In Space Discussed

Three Convair SD specialists in space studies appeared as a panel at the space travel seminar of the Western Orthopedic Association recently at Hotel del Coronado, San Diego.

Dr. R. C. Armstrong, head of Convair SD aerospace medicine group; W. E. Woodson, human factors supervisor; and Earl Kops, design specialist in mechanisms group, discussed effect of space on humans and chances for survival.

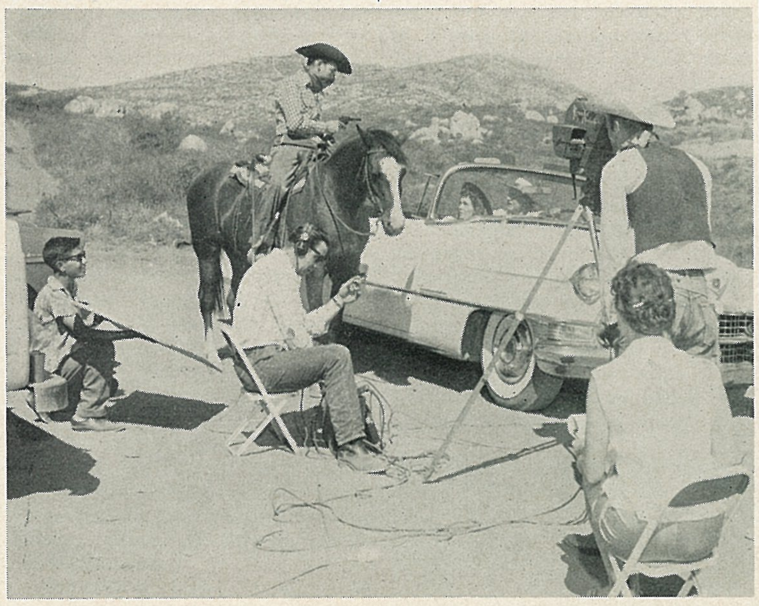
Cal. Personnel Parley Held

Representatives from Convair's San Diego facilities attended the 13th annual Southern California Personnel Management Conference held recently at Rancho Santa Fe.

Attending from General Office was James Budros, while Convair SD was represented by F. W. Burr, SD labor relations representative and L. M. Harper of SD wage and salary section.

From Astronautics, M. V. Wisdom, manager of industrial relations; T. W. Wills, his assistant; Ross Evans, chief of educational services; and Don White and Jack Croft of educational services, attended.

Representatives of many commercial activities in the San Diego area attended the conference which was sponsored jointly by San Diego Personnel Management Association and San Diego State College.



SHADES OF WEST—Duane Boyer of Convair SD Dept. 115 holds up modern "stagecoach" as movie workshop crew grinds out shots on location in El Cajon valley for upcoming melodrama.

Two From SD Double as Screen Actors, Build Miniature Sets For Melodrama

Duane Boyer and Tony Kolodzy, both of Convair SD, are doubling as screen actors at night for a local motion picture group in a forthcoming melodrama, "All That Glitters."

Boyer of Dept. 115 and Kolodzy (Dept. 31) not only play lead roles in the fourth production of LaFrance Motion Picture Workshop, but devote their special skills to the building of miniatures and sets used in the filming.

Shooting, which attempts to duplicate a real-life Hollywood operation except for size, has taken a year and a half. Premiere showing will be Dec. 2 at La Mesa Art Center, 8055 University Ave., La Mesa. It will be shown two times each night through that weekend.

Convair 'Students' Attend Institute

Three Convair SD "students" are attending the fifth annual Middle Management Institute which places particular emphasis on leadership skills and human factors involved in individual and group leadership.

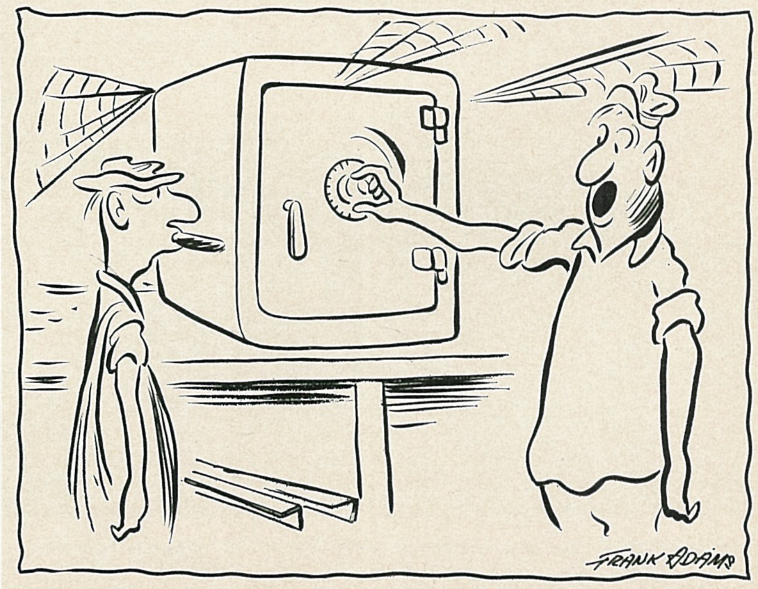
They are M. C. Tombler (Dept. 6-21), James F. Good (Dept. 135), and Gerene H. Aldridge (Dept. and is being held on five alternate 34-1).

Safety Crib Changes Schedule of Hours

In a recent change of hours, Convair SD safety crib in Bldg. 32 at Plant 1, is now open from 7 a.m. to 6:30 p.m.

Hours for the employees tool store in the same building are from 8 a.m. to 5:30 p.m.

Employee services operations, including insurance counter, close at 5 p.m.



"Needless to say, I seldom loan my pinion geared hand drill."

NEWS FROM OTHER DYNAMICS DIVISIONS

General Dynamics Corporation, created in April, 1952, as successor to Electric Boat Company, is composed of seven divisions and a Canadian subsidiary, Canadair Limited, of Montreal, airframe builders. The divisions are:

Convair, head offices at San Diego, Calif., aircraft, missiles, and space systems.

Electric Boat of Groton, Conn., submarines.

Stromberg-Carlson, of Rochester, N. Y., telecommunications, electronic equipment.

Liquid Carbonic of Chicago, Ill., carbon dioxide producer, industrial and medical gases.

General Atomic of San Diego, Calif., nuclear research, development, production.

Electro Dynamic of Bayonne, N. J., electric motors, generators.

Material Service Division, Chicago, Ill., building materials, concrete products and coal.

* * *

President of Northwestern U. Named Director of Dynamics

ROCHESTER — Dr. James Roscoe Miller, president of Northwestern University, has been elected a director of General Dynamics Corporation, Frank Pace Jr., chairman of the board, announced.

Dr. Miller thus joins three fellow Chicagoans — Henry Crown, William McCormick Blair and Hugo A. Anderson — on the board of directors. His election represents the growing interest by General Dynamics in the Chicago area, where two of that company's major divisions, Material Service and Liquid Carbonic, are headquartered, Pace said.

A medical doctor and a top ranking heart specialist, Dr. Miller rose through faculty ranks to become president of Northwestern University in 1949, at the age of 44.

Experts to Record Magnetic Flutters

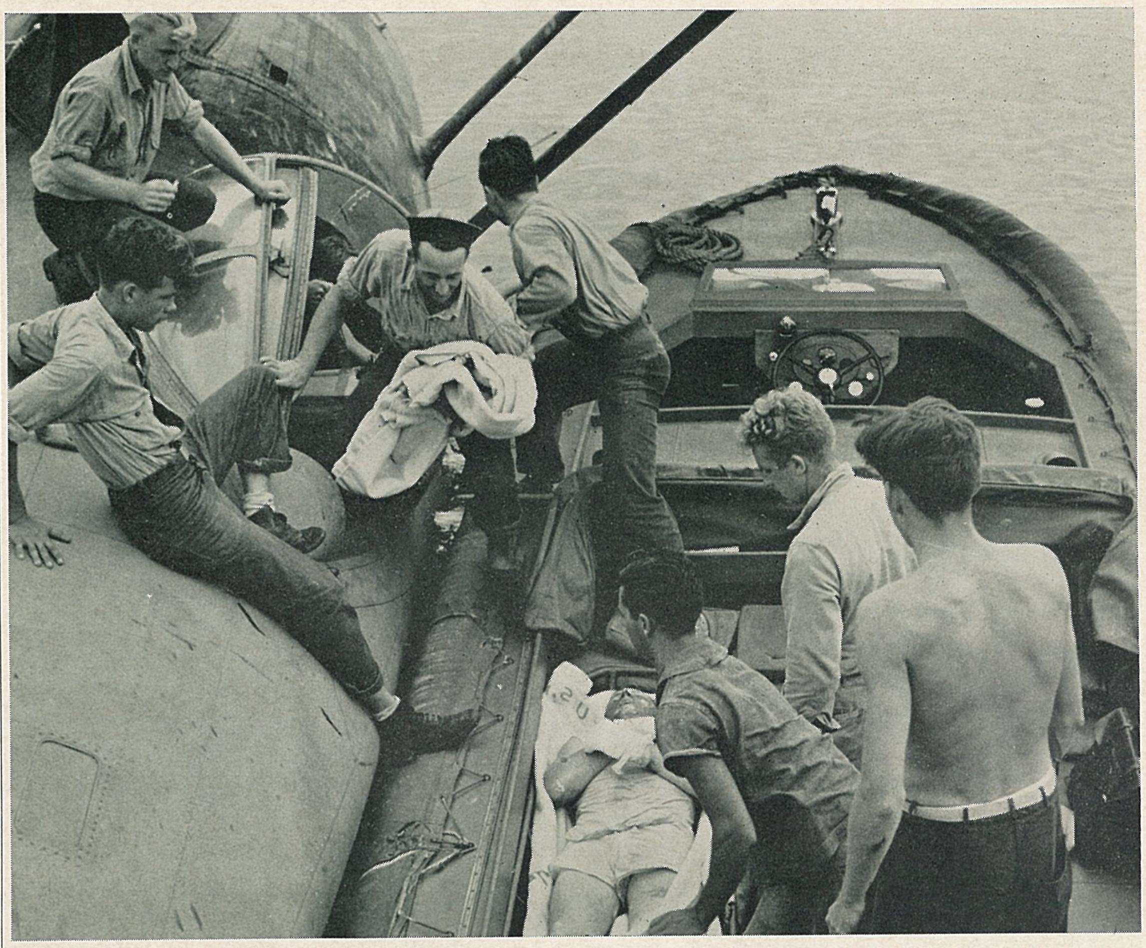
ROCHESTER — Flutters in the earth's magnetic field, which are a limiting factor in space communications—as with earth satellites, for example—will take three General Dynamics scientists to the Azores this fall, under the auspices of the Office of Naval Research.

There, on a rocky, windswept beach, they will make tape recordings of magnetic waves. Perhaps they will hold a key to the extraterrestrial influences which cause these magnetic disturbances which occasionally disrupt not only radio but wire line communications on earth.

The team, all in the research laboratories of Stromberg-Carlson, will be headed by Dr. Raymond A. Santirocco, astrophysicist.

NEW SUBMARINE COMMISSIONED

GROTON — Vice Adm. John T. Hayward, Deputy Chief of Naval Operations, was scheduled to speak today (Nov. 9) at the commissioning of the nuclear submarine Tullibee, built by Electric Boat here.



TO THE RESCUE—PBYs rescued many a pilot during World War II. This badly burned flyer was picked up by "Dumbo" from channel near Rabaul in South Pacific and is shown being transferred to shore boat.—U. S. Navy photo.

As 'Dumbo,' Convair-Built Catalinas Won Fame Rescuing Dunked Airmen

(Following installment in Convair's continuing history outlines more of PBY actions in wartime.)

In every ocean theater the PBY Catalina (built by Convair) became celebrated as a rescue aircraft. An early and typical example was reported from the Caribbean in March, 1942, when a PBY flown by Ens. F. E. Pinter spotted a loaded life raft between San Juan and Guantanamo. Landing in a rough sea, Pinter and his crew hauled aboard 17 men and one woman, haggard survivors of a torpedoed merchantman. Pinter barely got off by "giving her the gas on the bounces." It required 20 minutes flying to climb to 500 feet.

By early 1943 specialized rescue Catalinas were operating in the Pacific to pluck stranded aviators from hostile waters and shores, often within range of enemy gunfire. Nicknamed "Dumbo" (after Walt Disney's flying elephant), the South Pacific rescue planes were credited with bringing back more than 160 flight crewmen in the first 18 months. By war's end the total rescued in all theaters would run into many hundreds.

In the Southwest Pacific, Catalinas of Patwing 10 that survived the early withdrawals from the Philippines and Netherlands East Indies were based at Perth, Australia, and became the nucleus of the Seventh Fleet air arm. Expansion of land and tender-based air activities in 1943 brought commissioning of Patwing 17 (Capt. Thomas S. Combs) at Brisbane. By the following summer it was Fleet Air Wing 17 (Commodore Combs) with three squadrons of Catalinas, two of Liberators, and one of PV-1 Venturas, plus six seaplane tenders—Currituck, Heron, Orca, San Carlos, Tangier and Wright.

As the New Guinea campaign opened forward bases, elements of Fairwing 17 moved northwestward, until by late summer of 1944 the tender Wright was stationed at Owi Island near Biak, whence her Catalinas could range as far as Philippine waters or the Celebes on patrol, antishipping and Dumbo missions.

When Liberators of the Fifth and 13th Air Forces raided Borneo oil refineries from New Guinea that fall, the rescue Cats performed brilliantly. The 307th Bombardment Group lost four B-24s in the Balikpapan strike of Sept. 30, but PBYs picked up the complete crews of three of the planes and half of the men of the fourth. Maj. Gen. George C. Kenney, commander, Allied Air Forces, has reported that 50 P-38 fighter pilots volunteered to accompany B-24s to Balikpapan, knowing that they would run out of gas on the return trip, "if I would just send six or seven Catalinas out to meet them." The pilots were confident they could "simply parachute down and get picked up by the Cats."

Combs was relieved as commander of the Seventh Fleet Aircraft in July, 1944, by the officer who had commanded Patrol Wing 10 in the retreat from the Philippines—now RAdm. Frank D. Wagner. When the Philippines were recaptured that winter it seemed fitting that he should return to Manila Bay flying his flag in the seaplane tender Currituck, mother ship to many a Catalina.

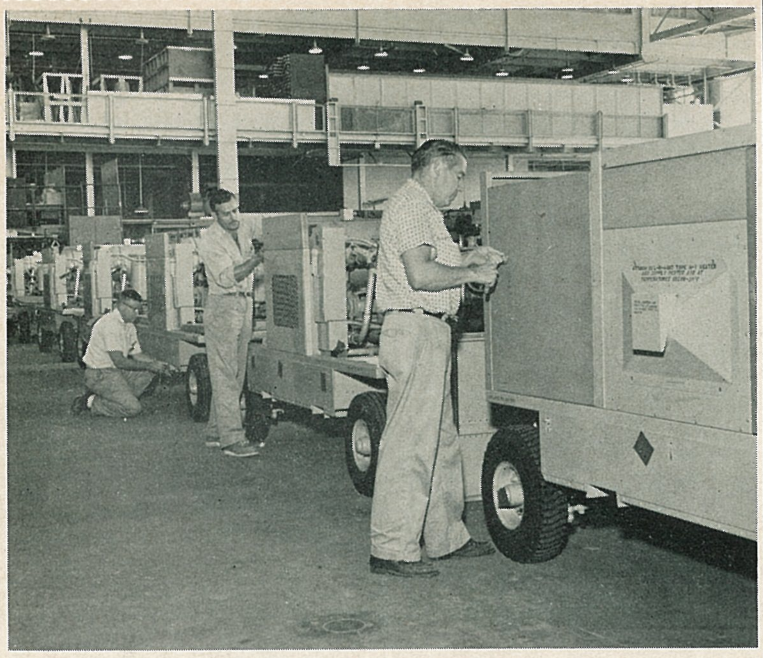
While the Pacific PBYs performed their innumerable missions in the long campaign from Guadalcanal to Okinawa, Catalinas in the Atlantic were chiefly occupied with anti-submarine warfare. This began with the organization of the Neutrality Patrol and continued through the period of "measures short of war." It reached a climax in the 1942-43 offensives against enemy submarines.

Five 12-plane squadrons—VP-33 and VPs 51 and 54—were assigned to the patrol when it was organized in September, 1939. After Roosevelt negotiated the bases-for-destroyers deal with Great Britain, three Cats from Patron 54 were moved to Bermuda and early in 1941 Patron 52 was sent to the new U.S. base at Argentia, Newfoundland. On Aug. 6 the Cats of Patwing 6 (Capt. H. M. Mullinix) moved to an American base at Reykjavick, Iceland.

The Navy had seven PBY patrol wings in the Atlantic at the time of Pearl Harbor, but these were reduced to bolster Pacific operations. In January, 1942, when Adm. Doenitz unleashed a massive submarine offensive in American waters, there were four PBY outfits remaining at Argentia, Norfolk, Jacksonville-Key West and San Juan-Trinidad.

Spread thin in two oceans, the Navy scored only eight U-boat kills in the first six months of 1942. The first in which a PBY participated took place July 12-13 when a Cat from Patwing 3 (Panama Sea Frontier) caught and depth-charged the U-153 off Almirante. Air-sea units held the damaged boat submerged until the destroyer Lansdowne polished it off next day.

The pace quickened in August. On the 20th a PBY-5A skippered by Lt. (jg) R. B. Hopgood sank the U-464 south of Iceland, and on the 28th a Cat from VP-92, operating out of Guantanamo, blew the U-94 to the surface for a kill by warships.



ASSEMBLY LINE—H. E. Brust, F. T. Streeter, and D. H. Weeks, all Convair SD Dept. 31, put final touches on Air Force quick engine change testers going down production line in Plant 1 experimental factory.

'Quick Engine Change' Test Units Built at SD For Use on F-106s

Going down the assembly line in Convair San Diego's experimental factory are Convair-designed QEC (quick engine change) testers being built under an Air Force contract.

Four of the 16 mobile units, designed for use at F-106 ADC squadrons, are already in operation at Geiger Field, Wash., Andrews AFB, Md., McGuire AFB, N. J., and Minot AFB, N. D. Two more will be ready for delivery within the next few weeks, said James Pike of Model 8 project office, program coordinator.

Completion of all units under the present contract is set for spring of 1961.

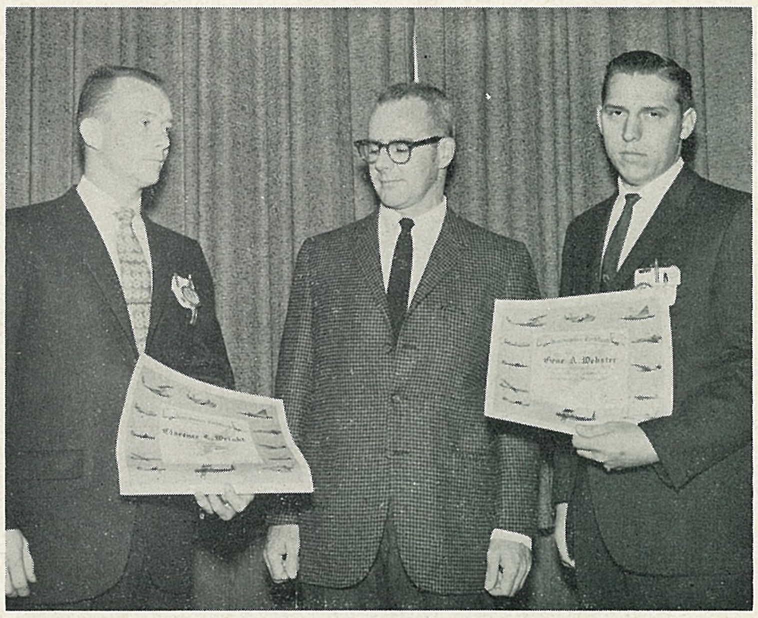
Designed to facilitate maintenance in AF squadrons, the Convair testers allow checkout of entire engine assemblies as complete units before installation in aircraft. They can be used to supplement existing AF facilities to test bare engines, explained Lou F. Ballou Jr., design specialist of SD propulsion group, and are readily adaptable to all types of jet engines.

Advantages of the QEC testers include saving in manhours, with as many as seven man-days saved during each engine checkout"; reduction of aircraft "down time"; immediate knowledge of complete engine performance; and eliminating necessity of testing powerplants in the plane, said SD propulsion engineers in charge of design.

Design work began in May of last year with P. W. Corbett responsible for the concept development to specifications approved by SAAMA for ADC. Lead engineer on the project was James Jonte with experimental department at Convair SD in charge of production under C. S. Rosefeld, Dept. 31 assistant foreman.



QUALITY CONFERENCE—Quality control leaders from all Convair divisions gathered at Convair San Diego recently (Oct. 17-18) for twice-a-year session. From left, are P. M. Benner, SD; G. A. Covington, SD; H. G. Jenkins, A. C. McMaster, C. C. Frankenberger, all of Pomona; D. R. Archibald of Astronautics; T. E. Hoffman and J. Y. McClure of FW; R. H. Gilliland of SD; and SD Manager R. C. Loomis, who welcomed group.



FIRST OF KIND—First apprentice assigned to Convair Instruments after completion of four-year Convair SD apprentice training is (at left) Clarence E. Wright, classed as precision development technician. Also receiving journeyman certificate from T. J. Sullivan (center), SD assistant manager-contracts, customer service, material, is Gene A. Webster, electronics technician now in Dept. 15-6.



HAVIN' A BALL — Estimated 250 dancers from Convair SD, Pomona, Astro and Warren AFB attended jamboree held recently at Astro. Couples leading grand march in top photo are Rita and Dale Brownell, Warren AFB; Rosemary and Marty Stutz, Astro; Mr. and Mrs. John Warren, Pomona; Dorothy and Maury Scholz, SD.

250 Dancers At Jamboree

Square dance enthusiasts from Convair SD, Pomona, Astronautics and Warren AFB turned out en masse for the rollicking All-Convair Square Dance Jamboree Oct. 29 in the Astro Cafeteria.

An estimated 125 persons attended the potluck supper which started the festivities at 6:30 p.m., while an additional 125 joined in the dancing which began at 8:30 p.m.

Approximately 35 dance squares were put through their paces by caller Van Vander Walker, assisted by 12 guest callers, to the music of the Square Notes.

Dancing continued until 11:30, then resumed at midnight with some enthusiasts continuing until 1:30 a.m. Participation in the "after-hours" dancing qualified fans for "Night Owl" badges.

Refreshments were served during the evening, and a variety of door prizes were given away.

THANKSGIVING DAY WILL BE OBSERVED

Convair people will observe the fourth Thursday in November as Thanksgiving Day. Except for necessary security and maintenance personnel, all company plants will be closed for the one day (Nov. 24). Regular working hours will be in effect Friday (Nov. 25).

Golf Club Sweeps Slated Nov. 19-20

SD and Astro golfers will be putting for birdies and birds at the next Convair Golf Club sweeps Nov. 19-20 at Coronado.

Turkeys will go to winners of the sweeps which was formerly scheduled at Rancho Santa Fe. To place reservations, contact Alma, ext. 552, Plant 2. Deadline is Thursday (Nov. 17).

Electronics Group Will Meet Nov. 15

A meeting of the San Diego chapter of the Armed Forces Communication and Electronics Association will be held Tuesday (Nov. 15) at the Golden Lion Restaurant, 5872 El Cajon Blvd.

William G. Alexander, president of Ryan Trans-Data Inc., will discuss "Technical Information Processing Problems and Some Possible Answers."

Panelists who will continue the discussion include Robert E. Honer, Convair SD manager of electronics; Edward Clare, sales manager, KIN-TEL; and William Jorgensen, chief librarian, Naval Electronics Laboratory.

The meeting, which starts with a 6:30 p.m. social hour followed by dinner at 7:15, is open to everyone interested. For reservations, call Paul Vasques, ext. 1391, SD Plant 1.

SD-Astro Skate Groups Slate Trip for Nov. 13

Convair SD Ice Skating Club and the Astro-Blades will be joint sponsors of a trip to Paramount Ice Arena Nov. 13.

This rink is said to be one of Southern California's finest, and is located a few miles beyond Lakewood Shopping Center in the Long Beach-Los Angeles area. Organist Truman Welsh accompanies the skating.

Participants have been asked to arrange transportation individually, and an auto caravan will leave Astronautics Bldg. 2 at 7:30 a.m.

Morning skating session at the rink begins at 9:30 a.m. At 5 p.m. a dance session is held with expert skaters presenting an entertaining show.

In San Diego, the clubs skate at Iceland, 6055 Lake Murray Blvd., from 6:30 to 8 p.m. every Thursday. Free instruction for beginners, intermediate and advanced skaters is provided. The rink is opened to the public from 8 to 10 p.m., and Convair enthusiasts may continue to skate at no extra cost.

Additional skating or trip information is available from Martha Woodberry, SD Plant 1, ext. 1245, or E. H. Davies, Astro ext. 3441.

AV Club Wins National Award

ANTELOPE VALLEY—Convair Antelope Valley Management Club received its first national award at last month's National Management Association convention in Atlanta, Ga.

Walt Austin, president, (Dept. 325), accepted the plaque which recognized the group's record of highest percentage of membership increase among affiliated company clubs during 1959-60. The award was based on attendance at meetings, which averaged 65 per cent of the total membership of 350 during the last complete club term.

Antelope Valley delegates at the NMA convention, besides Austin, were Ed Mastaglio (MSTS), vice president; James Tate (Dept. 328), treasurer; and Joe Belcher (MSTS), secretary.

"Space Night" will be theme of the club's Nov. 16 meeting at Antelope Valley Country Club. Reservations for the 6:30 p.m. dinner meet may be made through the booster committee.

Open House Planned At SD State College

Convair parents of high school seniors in the San Diego area are invited to accompany their teenagers to an Engineering Open House at SD State College Saturday (Nov. 19).

All visitors will meet in the school's music auditorium at 9 a.m. for conducted tours through the engineering department's laboratories and facilities. Dr. Ernest B. O'Byrne, vice president of SD State, and Prof. Martin P. Capp, chairman of the engineering department, will speak during the morning program.

Sponsor of the event is the college's chapter of Sigma Delta, civil engineering honorary society.

Convair Men Fence in LA

Convair SD-Astro Fencing Club was represented in a recent Amateur Fencing League of America (Southern California Division) competition in Los Angeles.

Representing the club in the class "C" foil event were Ray McNamara, SD Dept. 6; Mike Hurley, Astro Dept. 597-1, and Lowell Dubberke, Astro Dept. 535-3.

The team was supported by Convair daughters Barbara Proppe and Marlene and Marilyn Qualiato.

The competition was electrically scored, requiring the use of electric weapons, body cords and metallic weave vests. The club supplies equipment for electric fencing with foil and epee.

In other recent competition, a club sponsored by Astronautics' Los Angeles field office was represented by Fran Ivy who won third place in the women's event of the Southern California championships. This club is directed by J. "Jeep" LaMonte, Dept. 280-5.

SAFETY EMPHASIZED ON SILO PROJECT

Construction of the silo mockup at Astronautics has proceeded with no lost-time accidents from the first of the year until the present.

During this period, more than 275,000 manhours were expended, with an average of 200 employees on the job every working day. For many on the project, this was the first time for "off-the-ground" work.

From the project's beginning, safety practices were stressed constantly. One "safety monitor" was appointed for every 10 employees, and safety meetings were held weekly.

Besides standard practices such as the use of safety belts and rigid scaffolding, the hazard from falling objects was reduced by providing each employee with a portable container for holding small parts and tools. Wrenches used on the job were fitted with lanyards so they could not be accidentally dropped.

N. L. Jones, tooling supervisor, is in charge of the project.



YOUR MOVE — Convair SD chess champ Newton Grant (Dept. 6) last month tied for San Diego City and County Chess Championship.

Newton Grant Chess Champ

Convair SD chess expert Newton Grant (Dept. 6) last month matched moves with the best players in the area and finished in a first-place tie for the San Diego City and County Chess Championship.

Grant, holder of the Convair SD Chess Club crown, and nationally-rated expert, was one of three seeded players in the finals. Five others reached the main event after a preliminary elimination tourney.

Also in the finals was William Thornton, Astro Chess Club commissioner and champion. He finished fifth in the seven-game, round robin play-off.

Alexander Keyes tied for first with Grant for the title. Oddly, Grant was the only tourney player who did not lose a game. But he played three draws, giving him the same point total as Keyes, who tied one game and lost one game.

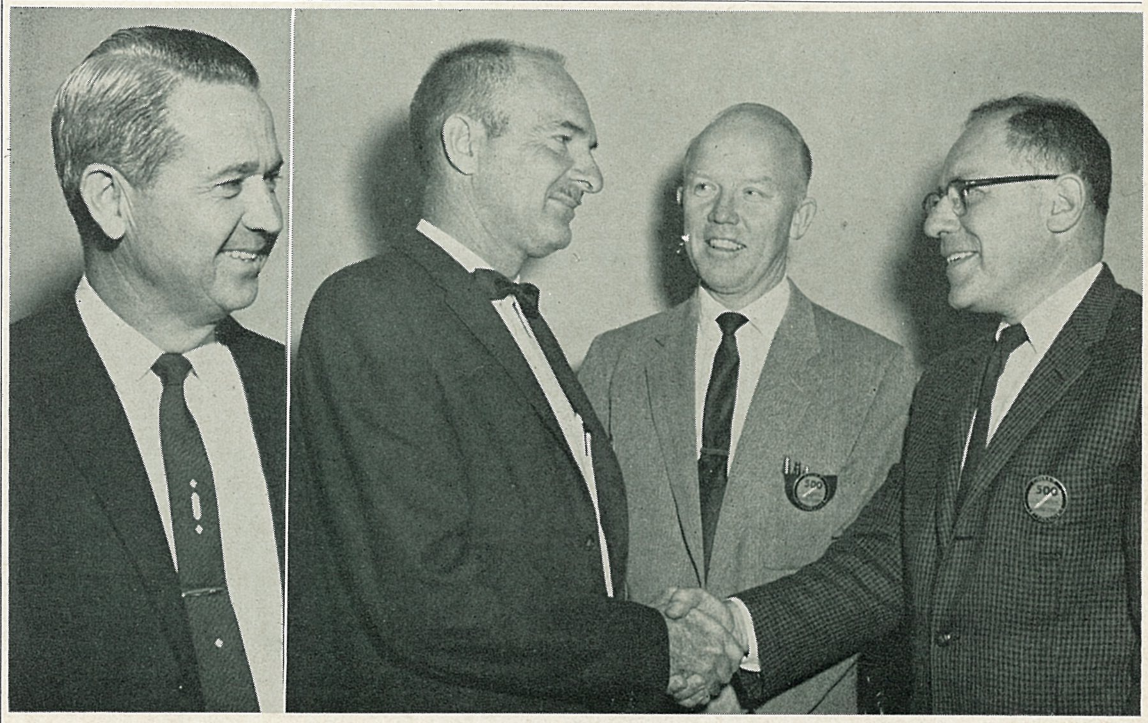
The Convair SD representative was also director of the tourney which was sponsored by the California State Chess Federation and the United States Chess Federation.

LaFrenier Injured In Glider Crackup

PALMDALE—Paul LaFrenier (Dept. 322-0) is in Hemet Hospital for treatment of serious injuries incurred in a glider crash Oct. 29 at Lake Elsinore.

LaFrenier, a glider enthusiast for many years, was test flying a new-type glider at the time of the accident. His injuries included a badly fractured jaw and multiple breaks in one ankle. He is expected to be confined to the hospital for several weeks.

Past president of the Antelope Valley Soaring Club, he is currently serving as secretary-treasurer.



CONVAIR VETERANS—At left is D. B. Suggs, Astro Dept. 510, who recently received 25-year pin. At right M. Rosenbaum, Astro chief engineer, congratulates L. W. Standley, senior design group engineer, on receiving similar pin. Watching is L. E. Munson, chief design engineer.

CRA Sports & Recreation Convairiety

City, Shop Basketball Squads Organize for Winter Activity

Tryouts for the Convair San Diego varsity basketball team will be scheduled during the next two weeks, Gil Crosthwaite of the CRA office reports.

Players with high school, college or city league experience are invited to try out for the squad. Those interested should contact Crosthwaite after 1 p.m. at ext. 1245, Plant 1.

Workouts will be scheduled according to the number of players. The team will be entered in a pre-season city tourney the first week in December.

* * *

Departments planning to enter basketball teams in the shop league are reminded that firm entries should be placed by the week of Nov. 14.

A special Convair SD-Astro pre-season tourney will get under way the last week in November. Some 20 teams from both divisions have already made tentative entries. Roster blanks can be obtained from Crosthwaite, CRA office, Bldg. 32, Plant 1.

CRA Calendar

(Convair SD Recreation Association has some 40 activities in operation. For information on SD sports, call CRA headquarters, ext. 1245, Plant 1.)

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ARCHERY — Regular shoot Sunday (Nov. 13), starting at 9:30 a.m., Balboa Park Field Range.

BASKETBALL—Shop leagues now forming. Varsity tryouts planned. Contact Gil Crosthwaite, ext. 1245, Plant 1. GIRLS' BASKETBALL—Contact Irene Dionne, ext. 1261, Plant 1.

BRIDGE CLUB—Next session Tuesday (Nov. 15), 7:30 p.m., Hotel Barcelona, 326 Juniper St.

FENCING—Workouts and instruction every Friday, 7:30-9:30 p.m., YWCA, 10th and C Sts.

FISHING CLUB—Potluck dinner 6 p.m., meeting at 7:30 Tuesday (Nov. 15), CRA Clubhouse, Gillespie Field.

GOLF — Convair Golf Club sweeps Nov. 19-20 at Coronado. To enter call Alma, ext. 552, Plant 2, before Nov. 17.

JEEP CLUB—Quarterly meeting Wednesday (Nov. 16), 7:30 p.m., Civil Defense Bldg., Gillespie Field.

JUDO—Workouts and instruction every Thursday in CRA Clubhouse, Pacific Hwy., 6-7:30 p.m.

ICE SKATING—Trip to Paramount Ice Arena Nov. 13. Car caravan leaves Astro Bldg. 2 at 7:30 a.m.

MOVIES—Reduced-price movies Fridays, Saturdays, and Sundays at Adams Theater, 3325 Adams Ave. Adults: 50¢; children under 12 free, if accompanied by adult.

PISTOL CLUB — Next regular monthly shoot Sunday (Nov. 13) San Diego Police Pistol Range, 9:30 a.m.

RADIO CLUB—Next meeting tomorrow (Nov. 10), 7:30 p.m., Harbor Drive headquarters.

RIDING CLUB—Turkey trail ride Sunday (Nov. 20), Circle R Ranch, Santee, 11 a.m.

ROCKHOUND CLUB — Field trip Nov. 12-13 to area 11 miles west of Barstow. For information call Danny Whorton, ext. 426, Plant 1.

ROLLER SKATING — Convair skate night Monday (Nov. 21), 6:30-9:30 p.m., Skateland, Front and G Sts. Tickets available at SD employee services.

SKI CLUB—Meeting Nov. 17, 8 p.m., executive dining room, new cafeteria. Sno Ball Nov. 19, 9 p.m., Cotillion Room, El Cortez Hotel.

SQUARE DANCING — Party night Nov. 26, 8 p.m., American Legion Hall, 4061 Fairmount Ave.

VOLLEYBALL — Two-man leagues now forming. Meet every Monday, 7 p.m., Muni Gym, Balboa Park.

Jeep Club Slates Quarterly Meeting

Quarterly meeting of the Convair SD Jeep Club and San Diego Ridgerunners will be held next Wednesday (Nov. 16) at 7:30 p.m. in the Civil Defense Bldg., Gillespie Field.

General club reorganization will be discussed and all members are requested to attend, said Art Thomas, club spokesman. Plans will also be formed for the group's Christmas party.

Schedule Full For Dancers

Dates and plans for future square dancing activities were announced last week by Maury Scholz, CRA Hoedowners commissioner.

Coming up first will be the regular party night on Nov. 26 which will start at 8 p.m. in the American Legion Hall, 4061 Fairmount Ave. Added attraction that night will be an old-fashioned bazaar with all types of merchandise on sale.

Scholz also invited dancers who need some "brushup" lessons to attend the beginners class which meets every Wednesday at 8 p.m. in the Uptown Hall, 30th and Meade.

Two other events on the agenda for Hoedowners are the Tri-Association "Officers Ball" and another All-Convair Jamboree.

The "Officers Ball" will be held in January under sponsorship of the Heartland, Palomar and San Diego Square Dancing Associations. It will be hosted by the Convair SD group and an advance ticket sale will be limited to hall capacity.

The next All-Convair Jamboree will be held March 11 at Pomona.

More Gals Needed For SD Hoop Team

More players are needed now or a CRA-sponsored girls' basketball team will not be organized this year.

At present count only three members of last year's Convair SD championship squad will be returning for action, and at least seven players are needed before a hoop team can be entered in the city league.

Any sports-minded gals at Convair SD interested in the activity should contact Irene Dionne, ext. 1261, Plant 1. A pre-season tourney is scheduled to start Nov. 28 and the decision on whether or not to form a team will be made during the next week.

Fishing Club Plans Potluck at Meeting

A potluck dinner will precede the Nov. 15 meeting of the Convair SD Fishing Club at the CRA Clubhouse, Gillespie Field, said Bob Menzie, commissioner.

Menzie said the menu for the 6 p.m. potluck will be coordinated by Mrs. Williams at AT-2-3933. The regular club meeting will get under way at 7:30.

Fishermen are reminded that starting this month the Winter Fishing Contest, which features one $10 prize for the top catch, goes into effect. It will run through March of next year. Entry blanks are available at employee services.



MODEL MEET—These were some of scenes at Convair SD Aeromodelers free-flight gas contest Oct. 30 at Hourglass Field. In top left photo is Nat Antonioli, one of leading club contestants. Signing in entries at top right are (from left): Mrs. Gary Witt, Gary Witt, Vic Korski, CRA commissioner, and Mrs. Walter Mooney. Kids at bottom left didn't compete but had plenty of fun.

Ski Club Plans Busy Schedule As New Season Gets Under Way

Meetings, dances, outings and lessons are among activities scheduled for members and prospective members of Convair SD Ski Club as the winter season gets under way.

Everyone interested is invited to attend a kickoff meeting next Thursday (Nov. 17) at 8 p.m. in the executive dining room of the new Convair cafeteria on Pacific Hwy.

Ski trips to Mammouth Mountain Dec. 3-4 and a New Year's weekend trip to either Mammouth or Big Bear (depending on snow conditions) will be discussed.

First social event on the Ski Club calendar will be the first annual "Sno Ball" Saturday (Nov. 19) starting at 9 p.m. in the El Cortez Hotel Cotillion Room. Paul Ravino's orchestra will play for dancing.

The "Sno Ball" is being sponsored by all San Diego ski clubs affiliated with the Far West Ski Association. Each member club will enter a candidate in the queen contest. In addition there will be fashion show and door prizes.

Tickets for the dance, priced at $1 per person, will be available at the Nov. 17 club meeting and at Convair SD employee services, Plant 1.

New members joining the Convair SD Ski Club automatically qualify for reduced rates at Snow Summit for both ski school and lift tickets, which can be obtained at club meetings.

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Reduced rates will be offered beginning skiers at Convair SD for a Dry Land Ski School sponsored by the YMCA.

Because of CRA backing, beginning Convair skiers can take the course for $12 instead of paying the regular $17 fee. Instructor of the course is Joe Harris, who is also the CRA Ski Club commissioner.

Next series of classes will start Dec. 1 at the La Jolla Community Center. A total of six classes are held, four at the Community Center and two "on the hill" at Snow Summit.

The course takes students from fundamentals for first-time beginners all the way through use of the rope tow. Reservations can be placed by contacting Harris, AT-4-0278, evenings.

Williamson Sweeps Pistol Club Shoot

Joe Williamson (Dept. 401-5) shot scores of 286 and 282 to lead the field in the police course master class and the short national match at a Convair SD Pistol Club shoot Oct. 23.

Second place in the master class went to Jim Halfacre (Dept. 180) with 285 points, Bill Dittmann (Dept. 6) was runner-up in the short national with 276.

Other police course results saw R. E. Kezar (Dept. 6) lead the experts with 277 points, followed by Dittmann with 276. Ash Bishop III (son of Ash Bishop, Dept. 401-5) was top sharpshooter with 260 points, Harvey Ingalls (Dept. 6) was second with 253. Scores of 241 and 223 ranked Arley Utter (Dept. 119) and Chuck Vanderway (Dept. 6) first and second, respectively, in the marksman class.

Hightower Protein Powder Mix on Sale

One-pound cans of Hightower Protein Powder, which mixed with milk can be used as a meal substitute for weight watchers, is being sold for $3.64 (includes tax) at Convair SD employee services and Prophet Company canteens.

The formula is a 50 per cent protein powder fortified with vitamins and minerals. One pound equals 16 servings.

Color Guard Leads Homecoming Parade

Convair SD Mounted Color Guard chalked up another first last month when it was selected to lead the San Diego State College Homecoming Parade. The guard is captained by Luke Barbour (Dept. 180).

SD Club to Attend Rockhound Roundup

Field trips will be the order of the day for CRA Rockhounds who travel to a camp destination some 11 miles west of Barstow Nov. 12-13.

SD members making the weekend trek will join with rock collectors from other clubs who will be attending the fifth annual Rockhound Roundup near Barstow Nov. 9-13.

The CRA club will send maps to members well in advance of the trip, said Danny Whorton, commissioner. Others interested in attending can obtain route directions by calling Whorton, ext. 426, Plant 1.

Whorton also pointed out that Convair people are invited to use cutting and polishing equipment in the Rockhound Shack on Pacific Hwy.

Hours are Monday and Tuesday from 7-9 p.m. Swing-shifters can use the shack Tuesday afternoons, between 12:30 and 2:30.

CRA Club to Host Young Astronomers

Members of the San Diego Youth Astronomy Club will be hosted by the Convair SD Astronomy Club at a "star party" Friday (Nov. 18) at the CRA club facility, Gillespie Field.

The 7:30 p.m. meeting will include a short business session and a movie. Interested Convair SD youngsters are invited to attend.

Keith Sears, commissioner of the CRA Astronomy Club, is also on the board of directors of the youth group, which is made up of 12 to 16-year-old members interested in both astronomy and related sciences.

In order to maintain membership in the club the young scientists must post "B" or better scholastic averages, with satisfactory citizenship marks.

Turkey Trail Ride Scheduled Nov. 20

Convair SD Riding Club is now taking reservations for a turkey trail ride to be held Sunday (Nov. 20) at the Circle R Ranch.

Eighteen horses will be available for rent from the stables on a first-come, first-served basis. Turkey will be served. Monday (Nov. 14) will be the last day for placing reservations. Call Dorothy Zanarini, ext. 1627, Plant 1.

Regular meetings of the Riding Club will be held on the first Thursday of the month at 7:30 p.m. at the CRA Clubhouse, Gillespie Field.

Commissioner, Wife Injured in Accident

Eugene Zimmerman, Convair SD Garden Club commissioner, and his wife, Grace, were seriously injured in a head-on car crash Oct. 23 on Hwy. 395 near Temecula. Their daughter Janice, 10, escaped with minor cuts.

Zimmerman is expected to remain in Hemet Community Hospital in Hemet for roughly two more weeks. His injuries included a compound fracture of the left elbow, cuts and a bruised chest. Mrs. Zimmerman, who suffered a broken jaw, was released from the hospital last week.

Convair Nine Wins Second Tilt in Row

Brawley was defeated 5-4 on Oct. 30 to give Convair SD's American League baseball entry its second win in as many starts.

The Convair batting attack was led by Bob Steel (son of Charles Steel, Dept. 190) who smacked his second home run of the young season. Eddie Moraga (Dept. 6) and Bill Murphy (Dept. 93) shared the pitching chores.

John D. Blitch Joins G.O. as Esenwein Aide

John D. Blitch has been appointed to the newly-created post of assistant for programming techniques to the Convair executive vice president and as such will report directly to August C. Esenwein.

A retired rear admiral, Blitch will be responsible for developing new and improving current techniques used to institute, control, evaluate and forecast the progress of Convair research and development and production programs.



John Blitch

As executive assistant he will also effect throughout Convair appropriate means for scheduling, controlling, forecasting and determining the progress of Convair programs, and provide for functional policy guidance to the operating division managers and their staffs.

Blitch comes to Convair from Lockheed Missiles and Space Division in Sunnyvale, Calif., where he was on the staff of the program planning manager, Polaris Missile Systems, as PERT (Program Evaluation and Review Technique) task coordinator.

PERT, Blitch explained, is a management system for planning and program review developed by the Navy's Special Projects Office for use in the Fleet Ballistic Missile System. It now has been adopted by the Air Force under the code name PEP and is gaining widespread use throughout industry.

Blitch pointed out that the system is closely connected and allied with other types of management tools in use by Convair and other members of industry as an advance in the art of management.

Prior to retiring from the Navy, Blitch was Director of Air Warfare systems on the staff of Commander, Operation Test and Evaluation Force, at the Naval Base, Norfolk, Va.

He was graduated from the U. S. Naval Academy in 1936, designated naval aviator in 1939. As a World War II pilot in the Pacific he won the Navy Cross, Silver Star Medal, Distinguished Flying Cross with two Gold Stars, Bronze Star Medal, Air Medal with five Gold Stars, and the Purple Heart Medal.

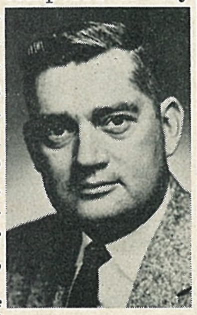
At one time the press called him the "luckiest man in the fleet" when he was rescued by seaplane after two days in a life raft.

His family includes his wife, the former Marion Margaret Kratz of San Diego, and sons, John, 21, a student at Foothill College, Los Altos, and Tommy, 4.

Convair FW to Host Reliability Meeting

Convair FW will host the quarterly General Dynamics panel on reliability Dec. 7 and 8.

The panel is composed of key scientists, quality control engineers, and reliability experts from each division of General Dynamics who report to L. B. Richardson corporate senior vice president, engineering.



W. R. Monroe

Purpose of the panel is to "stimulate action within the Corporation and divisions . . . to solve reliability problems for our products."

Panel officers are: W. R. Monroe, San Diego manager of reliability, panel chairman; A. E. Dohna, Electric Boat chief of quality engineering, deputy chairman; and P. M. Benner, San Diego chief of quality assurance, secretary.



PRACTICE RESCUE — Convair FW firemen regularly rescue "Luther," a life-size dummy, from burning cockpit of junked fuselage at Carswell AFB. At top team's in midst of blaze. Firemen carrying Luther are, left to right: R. E. Bryan, R. M. Ardoyno and Capt. T. W. Atteberry.

Convair Firemen Answer Call When Jet Lands in Emergency

Alert Convair firemen played a role in the safe landing of an American Airlines 707 jetliner Oct. 25 at Carswell AFB.

Carrying 126 passengers and crewmen, the big jet by-passed Love Field for Carswell when its nose landing gear failed to come down.

Convair Fire Capt. A. L. Bridges received an urgent message from Carswell at 4:54 p.m.: "Stand by for emergency landing of 707 jetliner with nose gear in locked up position."

"We rushed all available men and equipment to the landing strip," said Fire Chief C. H. Jones.

This included two dry-powder trucks with fire-extinguishing agents, two 0-11A crash trucks with fire-killing foam, two 750-gallon pump trucks, a rescue car, and three Convair ambulances.

Carswell crash trucks had foamed a strip about 5,000 feet long and 20 feet wide for the crash landing.

At 5:12 p.m., with most of its fuel spent, the jet set down on the Carswell strip, rolling 800 to 900 feet after the nose section scraped the runway, creating a shower of sparks.

Convair crash trucks were on the scene "practically when the plane came to a halt," pouring foam under and around the nose section to prevent possible fire. Carswell crash trucks also moved in immediately.

Other Convair powder and crash trucks—together with other Carswell trucks—stood by as passengers hurriedly left the plane.

"Several of our people helped American Airlines crewmen set up the rubber escape chutes, then helped the passengers to deplane," Capt. Bridges said.

The jet was towed to a roped-off area on the Convair ramp just north of the B-58 production run stations for repairs. An American Airlines crew flew the plane to Tulsa Thursday morning, Oct. 27.

Mark Wilson and J. B. Brock, Dept. 7-2, and Convair guards, assisted AA crewmen during the repair operation.

Convair firemen assisting in the landing operation were: Capt. Bridges, Lt. J. K. Minter, L. D. Mercer, J. N. Phillips, W. R. Rowden, R. S. Brown, C. R. Anderson, H. E. McDowell, D. E. Cannon.

Also, W. M. Hurst, C. H. Corbin, E. L. Brumbalow, H. Hedrick, H. E. Cutshall, H. V. Ritchie, R. C. Slater, W. C. Jones, T. Prestage, C. V. Smith, A. L. Ashabranner, E. C. Royall, A. L. Maloney, J. P. Goodwin, W. R. Henry, and W. M. Ballard.

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Convair FW firemen drill regularly at Carswell AFB, putting out practice fires and rescuing a dummy called "Luther."

Drill scene is a foot-deep pit equipped with an abandoned fuselage. Waste fuel is poured into the excavation and ignited.

"Our primary objective is rescuing personnel," Fire Chief C. H. Jones reported.

It takes firemen less than a minute to get "Luther" away from the flames. Dry-powder spray is first aimed at the fuselage, paving the way for a three-man team wearing aluminized suits, boots and hoods who make the actual rescue. Flame smothering foam ultimately douses the blaze.

Evans Speaks Before Missile Symposium

W. G. Evans, Convair assistant to director of procurement and material, was one of several speakers representing prime contracting missile firms at a three-day Ballistic Missile Symposium last month in Seattle, Wash.

More than 200 small businessmen were told how to prepare and compete for subcontract work.

Eight Take Course In Decision Making Via a New Approach

Eight Convair men, representing each of the operating divisions and General Office, met in San Diego late last month to take a five-day course on "Developing Decision Makers."

Harvard Business Review has described the course as a "new and highly original approach to training in decision-making skills . . . it can help managers to learn new ideas and skills, to practice putting them to work, and also to see and appraise the results of their action more quickly and perceptively."

The program was presented by Kepner, Tregoe and Associates, Inc., a firm specializing in management development and research in Southern California. Educational services at each division coordinated selection of students.

Convair men taking the course were E. D. Abramis, senior technical group engineer, Pomona; A. E. Andress, chief of data processing, San Diego; R. E. Honer, manager of electronics, San Diego; M. L. Hicks, assistant manager-contracts and procurement, Fort Worth; R. A. Fuhrer, chief manufacturing engineer, Fort Worth; G. L. Hansen, assistant chief-engineering design, Astro; C. G. Keach, general purchasing agent, Astro; and H. T. Verano, recently assigned to Pomona division.

Field Service at Astro Enters Its Third Year

Early in November, Astronautics field service engineers will mark the end of their second year of day and night support to the Air Force in its use of the Atlas weapon system.

In the two years of its existence, field service trained at Cape Canaveral the first crews destined for Vandenberg AFB; provided training for integrated crews of the Strategic Air Command's operational squadrons; and assisted the Air Training Command with instruction of individual airmen at Sheppard and Chanute AFBs.

In addition, the group has responded to more than 600 Air Force-originated unsatisfactory reports and several thousand field service engineering requests.

At present, Astro has more than 110 field service engineers on the job at off-site locations. **Heading these activities are C. B. Young, Vandenberg AFB; M. T. Smith, Warren AFB; R. D. Bergan, SAC Headquarters, Omaha, Neb.; Syl Weindling, Chanute AFB; T. Tanna, Sheppard AFB; H. Witman, Second Air Force Headquarters, Barksdale AFB, La.; M. Gelman (on loan to base activation), Offutt AFB; and D. Hamm (also on loan), Fairchild AFB.**

In the San Diego area, field service personnel report to R. W. Lessard, support services manager, who is assisted by A. H. Gross, chief of support engineering; H. M. Bailey, general supervisor; T. G. Fleming, Atlas field service and support supervisor; and H. G. Nulton, assistant supervisor, operations.

On call 24 hours a day, seven days a week, the field service teams provide timely and correct information whenever it is needed.

In their work they face exacting and accelerating schedule requirements, unique in most commercial and some military programs. They preserve the Atlas reputation for reliability by rapid analysis of problems, following these through to quick solution.

Additionally, many major contributions to the overall operation have been made by field service engineers who have pointed out areas for product improvement.

"Our field service representatives work for the customer, and the service they provide must be swift and sure," said E. A. Reynolds, manager of product support, in an anniversary statement. "They have met and solved many problems in the past, and in the future other problems will confront them.

"They will be called upon to set up reaction times to an even greater pace. They must cope with accelerated crew training schedules without diluting the quality of instruction provided."

Reynolds praised other Astronautics departments for their assistance to the field service operation. Singled out for special mention were the engineering project office, quality control, transportation, security, and even Astro's telephone operators who link the men in the field to San Diego.

"Field service is supporting SAC in the nation's first line of defense," Reynolds added. "This task calls for the continued cooperation of all departments to produce a reliable product, a satisfied customer, and a well-defended nation."



ON CALL—H. M. Bailey, A. H. Gross and T. G. Fleming pinpoint one spot in network of Atlas bases where field service engineers are on call around clock. Group heads effort to provide prompt and accurate solutions to problems arising in field.

Delta Extends 880 Service

Delta Air Lines, first airline to put Convair jet transports into service just six months ago, extended its 880 jetliner service to four more Eastern and Southern cities beginning Oct. 30.

Washington/Baltimore, Philadelphia, and St. Louis have been added to Delta's jet network. Round-trip flights on Convair 880s were inaugurated between Houston, St. Louis, and Chicago; and between Houston, New Orleans, Washington/Baltimore, and Philadelphia.

First 880s went into service over Delta air routes May 15 between New York and New Orleans, Atlanta, and Houston. Since then, Chicago, Dallas, and Memphis have been added to cities served by Convair 880s.

Eighth Convair 880 was delivered to Delta last month for use in its latest expansion of jet routes. Thirteen of the Convair airliners have been ordered by the Atlanta, Ga., airline.

Scholarships Granted To SD State College

Sixteen new undergraduate scholarships to San Diego State College have been granted by Convair SD and Astronautics for the fall semester.

The $75 scholarships are awarded on the basis of aptitude, scholarship, potential and need, and continue as long as students maintain standards established by Convair and the college.

Of the new grants, 13 were awarded by Convair SD and three by Astronautics.

Vehicle Materials In Space Discussed

Dr. J. F. Watson of Astronautics materials research group (Dept. 592-1) presented a technical paper at the National Metals Congress last month in Philadelphia.

Entitled "Behavior of Aerospace Vehicle Materials at Cryogenic Temperatures to Minus 423° F.," the presentation was included in a symposium on structural materials in cryogenic design.

Absenteeism Drops to Lowest Point in Eight Months

During the first week in November, absenteeism at San Diego operating division fell to its lowest point since February.

The percentage of hourly wage earners absent during the week ending Nov. 6 was 2.63, the best week since that ending Feb. 21 when the mark was 2.59, the lowest point during the year so far.

Beginning late in September, the trend has been definitely downward. During the first 38 weeks of the year the percentage absent was under 3 per cent only during seven weeks. It was well over 3 per cent most of the time, in some weeks up to 4 or 5 per cent. However, for the week ending Oct. 2 absenteeism dropped to 2.74, climbed slightly to 2.83 for the week ending Oct. 23, then dropped to 2.68 for the week ending Oct. 30 and continued downward to 2.63.

(Employees on leave of absence or on vacation—or ill for more than five days duration are excluded from the figures.)

Although the 2.63 per cent achievement is the second best of the year, there still were 1,628 "unplanned man days" lost to production and approximately $33,000 in wages lost, too. Of every 100 hourly employees, more than 2½ were absent on any given day.

"I am pleased with this improvement, because at this critical time we need every shoulder to the wheel," Robert C. Loomis, division manager, said.

"We need every healthy employee on the job. We definitely do not want any on the job

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SAN DIEGO, POMONA, ANTELOPE VALLEY, CALIF. — ASTRONAUTICS OFF-SITE BASES, FORT WORTH, TEX.





FAST FLOW—New electronic data collection system at Convair SD is providing up-to-minute reports on parts "in work" throughout plant. In left photo, operating transmitter (one of 37 in strategic shop locations) is Earl Fisher (Dept. 192). Observing are Jack James, training instructor, and H. J. Dwiere (Dept. 192). At right Ken Kerr and Jay Bronson (both Dept. 97) check punched tape as message is received in Bldg. 8 data processing. From that point data is converted onto tab cards which are processed by computer. Control reports are ready next morning. System eliminates handwriting of move notices.

'Second Generation' Will Be Called '990'

Convair's "second generation jet airliner" which follows the 880, previously called 600, has been renamed 990 to recognize growth from the original design.

The intercontinental version will be called Coronado 990. American Airlines has ordered 25 domestic 990s, and Coronado 990 orders include Swissair, seven; SAS, two; Real Aerovias of Brazil, three.

MacBride Cites 'Unique Record' Of Convair SD

"Tremendously imaginative new ideas and concepts now originating at Convair San Diego may give birth to some of the most remarkable accomplishments yet seen," the executive vice president of General Dynamics Corporation predicted last week.

C. Rhoades MacBride told some 320 Management Club members that Convair San Diego has a record "unique in industry" as the "mother division which has given birth to such complex entities as Convair Fort Worth, Convair Pomona, and Convair Astronautics.

". . . and at the same time (Convair San Diego) has continued to retain its vitality. She is not 'licked' by any means. The test of a truly great corporation is through adversity," MacBride said.

The speaker said he was particularly pleased to address the Management Club: "because you people are the real seedcorn of what it takes to build a great corporation . . . because you match the great dreams with great execution."

Earlier in his presentation the executive vice president traced the history of General Dynamics Corporation and outlined its goals.

"General Dynamics is to the

(Continued on Page 6)

SD Con-Trib OKs $125,000 Pledge To United Fund

Second reading of a $125,000 pledge to the United Fund of San Diego County was approved unanimously last Wednesday by the Convair SD Employees' Con-Trib-Club.

The pledge is based on estimated employee contributions during the next year. It will be paid in quarterly installments.

As was the case last year, the pledge will include the stipulation that $25,000 be held by the United Fund in a "special project" account. Distribution of this sum will be designated by the SD Con-Trib-Club throughout the year, said J. K. Field, committee chairman.

Clair W. Burgener, United Fund president and campaign co-

(Continued on Page 2)

New Computer System Keeping Tabs on Parts

A new electronic "detective agency" is working around the clock at Convair San Diego producing up-to-the-minute reports on thousands of parts and subassemblies "in work."

Called a data collection system, it feeds parts information directly from the factory floor to the Bldg. 8 computer via "sending" and "receiving" machines linked by telephone cables.

The computer processes the day's activity, up-dates the work-in-process files and produces control reports which are distributed the next day for evaluation and corrective action.

The new system has been put into operation to realize the following objectives: reduce parts shortages, schedule delinquencies, and the number of priority orders; assist in stabilizing shop orders, and retain contact with each order and know its day-to-day status, according to R. F. Shane of systems and procedures.

Another advantage inherent in the system is the elimination of handwritten move notices that previously were needed to keep track of parts. This also lessens to a great extent the chance for "human error" because of reduction in the number of manual steps required.

The necessity for speedy and accurate transmittal of parts information was pointed out by M. S. Stepich, manufacturing control general supervisor.

"Each day 1,000 new shop orders originate at Convair San Diego," he said. "Each order may require anywhere from three to 50 transmittals as the part moves through the plant. Our dispatchers handle an average of 7,600 transmittals daily," he said.

Key document in the data collection network is the shop order card which follows parts and groups of parts from fabrication to installation.

Under the new system, the shop order card is run through a "Flexowriter," a typewriter-like machine which punches pertinent data such as part number and serial number on the card.

The order card then joins up with its respective part and together they start their trip through the factory. Each time the part moves or its "in work" status changes the order card is inserted in the nearest "Friden Collectadata" transmitter.

On the transmitter are special dials which can be set so that variable pieces of information can be sent speeding to the information center. (At the present time some 37 transmitters are located in all fabrication, subassembly departments and Rose Canyon.)

(Continued on Page 2)

Management Club To Dance at Grant

Annual Convair San Diego Management Club Christmas Dance, open to all members and eligible nonmembers, will be held Friday (Dec. 9) in the U.S. Grant Hotel.

The informal affair will feature the music of Francis Leonard in the Palm Room and the Wally Ford combo in the Crystal Room.

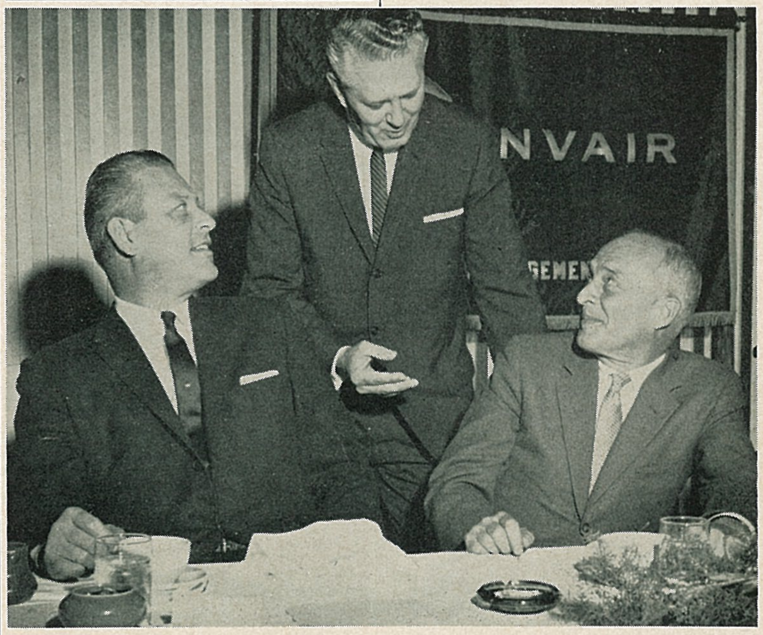
Tickets, available at club outlets, are priced at $2 per couple. Free corsages will be given to all ladies at the door and light snacks will be available during the evening.

Those who wish can take advantage of a reduced parking lot charge of 50¢ by showing their admission ticket at the hotel lot.

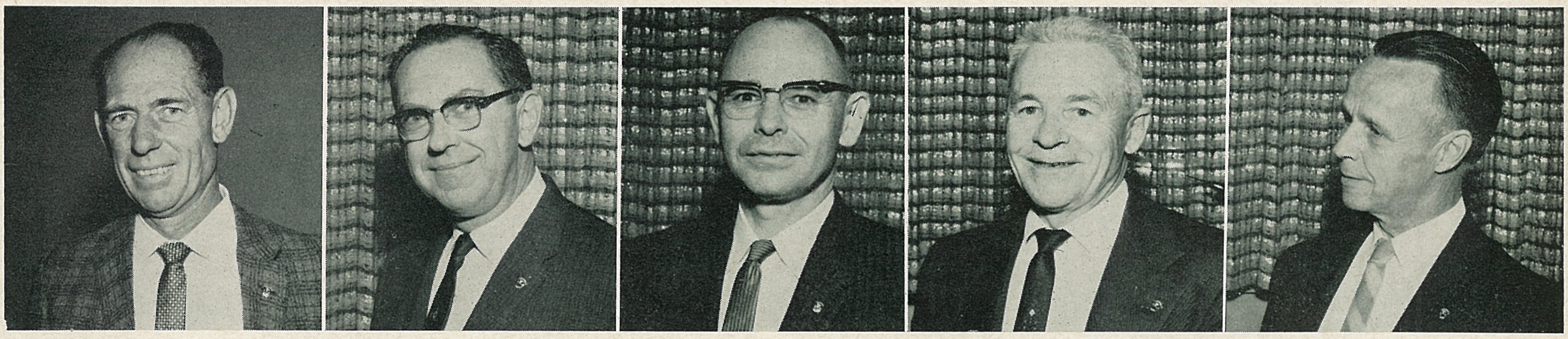
As in the past, arrangements for the dance are being handled by Management Club officers.



FUND BOOST—Members of SD Employees' Con-Trib-Club Council last week approved second reading of $125,000 pledge to United Fund of San Diego County. Seated (from left): E. E. Larsen, Gladys Story, J. K. Field, K. A. Sears. Standing: D. D. Strange, F. H. McLaughlin, H. D. Lamb, A. D. Parsons, R. W. Dill.



HUDDLE—L. G. "Larry" Lawson (standing), president of Convair SD Management Club, discusses November meeting program with August C. Esenwein (right), Convair executive vice president, and C. Rhoades MacBride, General Dynamics executive vice president. More than 300 club members attended meeting last Wednesday.



FIVE TWENTY-FIVES—Five Convair SD men recently received 25-year emblems from Conrad Kunze, SD assistant manager-operations. From left: H. K. Parsons, Dept. 146; F. H. Sharp, Dept. 6-53; W. W. Whittier, Dept. 95-3; N. T. Maisheff, Dept. 129; K. A. Miller, Dept. 34-1.

Log Book Entries

Service Emblems

SAN DIEGO

Service emblems due during the period Nov. 16 through Nov. 30.

Thirty-five-year: Dept. 232, A. E. Brennan.

Twenty-five-year: Dept. 6-21, G. L. Peyton; Dept. 15-5, J. W. Wiley; Dept. 192-0, T. A. Anderson; Dept. 232, G. O. Couchman; Dept. 401, W. V. Tisdale.

Twenty-year: Dept. 6, E. F. Kotnik, H. S. Stutzman; Dept. 8, C. D. Jeanes; Dept. 15, G. A. Pohlman; Dept. 31, R. H. Egbert, F. C. Romero; Dept. 146, R. F. Yturralde; Dept. 171, J. R. Heriot; Dept. 188, G. S. Durland Jr.; Dept. 192, G. E. Smith; Dept. 292, C. E. Hitson; Dept. 400, Herman Hodges; Dept. 401, Frank Eramo, R. M. Malo, J. E. Wood.

Fifteen-year: Dept. 6, R. M. Coyner, L. E. Pilling, A. P. Wilson Jr.; Dept. 15, R. W. Seehorn, J. K. Underwood; Dept. 21, W. E. Burnett; Dept. 135, Alberto Castaneda; Dept. 180, W. M. Eddings, J. D. Roper; Dept. 188, Martha B. Chamberlain; Dept. 192, L. M. Whitney; Dept. 197, Thelma F. Swaney.

Ten-year: Dept. 3, F. L. Arnold, D. D. Dimmitt Jr., L. R. Guthrie, C. P. Paularena; Dept. 4, Dorothy K. Francesconi; Dept. 6, D. L. Greer, A. N. Hatch, E. F. Kling, S. J. McCunney Jr., G. E. Miller, J. H. Monroe, J. G. Polk; Dept. 7, Winefred W. Firestine, W. R. Gray.

Dept. 15, K. W. Backus, Elizabeth S. Essex; Dept. 21, R. A. Stambaugh; Dept. 25, E. J. Anderson, Andrew Davis Jr., D. F. Dickie, H. C. Laubmayer, R. E. Laughead, J. T. McElroy, C. H. Olson, J. E. Plausse, E. W. Reid, E. A. Stedille, J. L. White.

Dept. 31, C. N. Goetz, E. P. Lockwood, Arliss H. Rainer, W. E. Wheeler; Dept. 34, P. D. Miller; Dept. 44, C. H. Borling, L. C. O'Brien; Dept. 119, L. M. Schlife; Dept. 120, H. L. McClister; Dept. 123, O. T. Meeks; Dept. 129, Stelma R. Hayes; Dept. 133, Wanda G. Scott; Dept. 134, H. E. C. Hunsaker; Dept. 143, Flora D. Keller, Jessie L. Prout.

Dept. 145, D. G. Sidars; Dept. 146, Abundio Gonzales; Dept. 160, F. M. Contreras, L. M. Williams; Dept. 180, J. R. Tooth; Dept. 187, Vallie E. Gottschalk; Dept. 188, Eleanor T. Block; Dept. 192, O. J. Shaffer, Barbara B. Wagstaff; Dept. 197, Garland Freeman.

Dept. 204, P. J. McGrath; Dept. 206, R. A. Fancher; Dept. 218, Hortencia L. Rodriguez; Dept. 233, Anita G. Diaz; Dept. 271, George Beck Jr.; Dept. 288, Doris V. Fox, Bernadine B. Suggett; Dept. 358, S. W. Orton; Dept. 400, R. L. Bales, O. F. Cash, R. K. Eastman, J. D. Gonzales, Mary C. Kieff, C. H. Plummer, A. D. Poling, Leta B. Werts; Dept. 401, S. E. Fandel, Manuel Lieras, A. J. Subilosky.

PALMDALE

Twenty-year: Dept. 328-0, J. D. Tate.

Promotions

SAN DIEGO

Promotions to or within supervision effective Nov. 7.

Dept. 44-1, Material Control: To material control supervisor, J. A. Cleghorn.

Dept. 115, Machine Shop: To foreman, G. D. Carroll.

Dept. 400-1, Tooling: To tooling general supervisor, G. E. Nuss. To tooling supervisor, M. M. Hill.

Personals

SAN DIEGO

We wish to thank all of our Convair friends for the many kind acts of sympathy at the death of our mother, Martha Robbins.

Irma, Robert (Convair Pomona) and Leo Robbins (Dept. 400).

* * *

I wish to express my sincerest appreciation to all my Convair friends who remembered me with cards, flowers, and gifts while I was in the hospital.

Frances Rance (Dept. 21-2).

Retirements

SAN DIEGO

DARLING—Orta L., Dept. 25-2. Seniority date Nov. 23, 1936, retirement effective Oct. 26, 1960.

SCHENCK—Frances E., Dept. 117. Seniority date Feb. 18, 1947, retirement effective Nov. 8, 1960.

TODD—Grant, Dept. 25-8. Seniority date Oct. 21, 1953, retirement effective Nov. 9, 1960.

WOHLER—Chester B., Dept. 8-4. Seniority date Sept. 4, 1947, retirement Nov. 4, 1960.

Year-End Holiday Schedule Repeated

As the holiday season rolls around, Convair people at all operating divisions will be celebrating Thanksgiving Day tomorrow (Nov. 24). Regular work schedules will resume Friday.

Two four-day weekends are in the offing for the year-end holiday schedules. Christmas holidays will give Convair people at California divisions free days on Friday, Dec. 23, and Monday, Dec. 26. New Year's holidays will be observed the next weekend on Friday, Dec. 30, and Monday, Jan. 2.

New Computer System Tried

(Continued from Page 1)

Receivers located in Bldg. 8 data processing (and one at Rose Canyon) report the message on paper tape. The tape is then fed into a converter which reverts it onto key-punched tab cards which are fed into the IBM 705 computer.

More than 250 persons, most of them from manufacturing control, are receiving special training in the new system.

"Purpose of the training course is to insure the transmission of exact, complete and timely data compatible with electronic data processing," said W. E. Newton, program coordinator from educational services.

Each student attends a two-hour indoctrination session which includes a demonstration of the equipment and instruction in its use. Those who will be directly assigned as transmitter operators receive an extra hour of specific instruction. This is followed by on-the-job practice guided by specially-trained monitors.

Two of the Convair men directly concerned with the new program are J. P. James, manufacturing control assistant supervisor, who conducted the training classes, and G. O. Withem, general supervisor of data processing.

Lost & Found

LOST—Shriner's ring, yellow gold set with one diamond, Nov. 10, probably in or near Bldg. 1, Plant 1. Reward for return to A. A. Phillips, Dept. 25, ext. 2095.

LOST—Man's keepsake ring, seven-diamond cluster mounted on gold band, two weeks ago while giving artificial respiration in Bldg. 2, Plant 2. Finder please call Vincent Tombrello, Plant 2 hospital, ext. 401.

Deaths

SAN DIEGO

LOSEY—Alice Louise, Dept. 129. Died Nov. 9. Survived by husband, Willard; two sisters; four brothers.

MALONE—Clyde T., Dept. 146. Killed in traffic accident Nov. 9. Survived by wife, Laverna; two sons, Clyde T. Jr. and Donald; one daughter, Martha Ann; father, Jerry Malone; three sisters; five brothers.

OTEY—Onnal, Dept. 231. Died Nov. 9. Survived by wife, Ileyne; three sisters.

★ Convairiety ★

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Approximate current total circulation, over 65,000. News items and letters to the editor are solicited, but no advertising can be accepted.

SD Editorial Offices, Building 32, Plant 1, ext. 1071. Staff: Grayce Fath, Helen Pemberton, Fred Bettinger.

Astronautics Editorial Offices, Bldg. 8, Astro site, ext. 3322. Staff: Bryan Weickersheimmer, news editor; Willard Harwood.

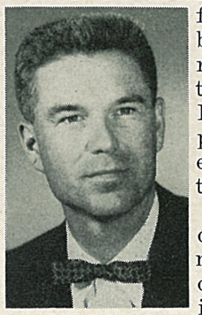
FW Editorial Offices, Col. 73C, ext. 2961. Mailing address: Convairiety, Convair, Fort Worth, Texas. Telephone PErshing 8-7311. Staff: Dave Lewis, news editor; Louise Sutton, Mary Beck.

Pomona Editorial Offices, Room 106-D, Bldg. 1, ext. 6226/5279, mail zone 3-3. Staff: James Combs Jr., news editor; Dorothy Keller.

Palmdale news representative, CRA office, Room 36, Bldg. 301B, ext. 331, Palmdale facility. Holloman: O. J. Ancel, industrial relations, ext. 20, Holloman AFB.

Loomis Makes Appointments To Key Posts

Four appointments to key positions at Convair San Diego were announced this month by R. C. Loomis, Convair vice president and San Diego manager.



H. C. Chambers

H. C. Chambers returns to SD from Pomona to be program director, transfer tasks. W. D. Reed is now superintendent, transfer tasks.

A. L. Hendricks has been named manager of SD estimating; and V. F. Cernuto assumes new responsibility as chief of manufacturing control.

Chambers, who joined Convair in 1939, was material control general supervisor at Convair SD



V. F. Cernuto A. L. Hendricks

before going to Pomona operating division in 1953. There he had held positions of staff assistant in the works department, chief of manufacturing control, and, more recently, customer requirements administrator before his new assignment.

As program director of transfer tasks he will act for Loomis in all matters pertaining to the transfer of tasks between Convair operating divisions.

Reed, as superintendent, will be responsible for fabrication of all transfer task items, and report to P. G. Osborn, SD factory manager. He first joined Convair in 1941 and was superintendent of fabrication at SD before he left the company in 1954 to become works manager of a Midwest firm, H and B American Machine Co., Inc. He returned to Convair SD the first of this month to assume his new position.

Cernuto, who joined Stinson Division in 1934, will report to Conrad Kunze, assistant manager—operations, as chief of SD manufacturing control. Since early this year he had been directing electronics manufacturing control activities at SD. He had previously held posts as chief of manufacturing control at SD Plant 2, as well as various jobs in production, manufacturing control, and master planning assignments.

Hendricks, who has been with Convair since 1941, will report directly to D. C. Burrows, SD controller. He has served as statistical analyst and reports coordinator in General Office; staff assistant in contracts and schedules, and budgets; SD budget department supervisor; and factory methods supervisor in industrial engineering. He was named chief of planning and methods in 1954 and since 1956 had been chief of standards and facilities control.

After Four Years Off-Site at SD, Service Parts Moves to Plant I

Convair SD service parts people will be moving back "home" this week after four years at an off-site location.

By next Monday (Nov. 28) 230 persons will be reporting to work in Bldg. 4, Plant 1, and find their new locations in the remodeled south mezzanine section of the building. Service parts activities, under John Doig, chief, have been located at 3250 Fordham St. since June, 1956.

The Bldg. 4 area, encompassing 15,000 sq. ft., has been completely renovated with modern lighting fixtures, acoustical ceiling, tile flooring, and new partitions. A fresh air system has been installed.

Administrative offices for Doig and his staff are located along the east wall of the service parts section. Doig's phone extension is 2753, Plant 1.

Both buildings on Fordham Street are being released by Convair SD service parts with the 3250 Fordham St. location to be occupied by Astro customer training. About 140 will be moved there from Plant 2 by mid-December.

The smaller building on the corner of Midway and Fordham will be used as sales office and engineering headquarters for Dynapak when that operation is moved to San Diego from Pomona after the first of the year.

SD Con-Trib OKs $125,000 Pledge

(Continued from Page 1)

chairman, thanked Convair San Diego employees for their generous response.

"This gift will be distributed among 97 vital community, health, welfare and social service agencies," he said. "When I express my gratitude on their behalf, I am really saying 'thank you' for the many thousands of men, women and children who will benefit from the programs and services provided by these agencies."

Of the estimated annual Con-Trib income, one account as in the past will be held in reserve. Field said 10 per cent of the total will be distributed to Convair employees through the emergency aid program.

Not included in the San Diego United Fund designation are Con-Trib donations made at SD's off-site bases (Holloman, Palmdale). Recommendations of advisory committees at those locations are considered by the San Diego committee, and funds allocated to to drives in those areas.

Single Day Missed in Ten Years Is Record of SD's Queena Poe

Typical of women at Convair San Diego whose "on the job" records are outstanding is Queena Poe (Dept. 116).

In the 10 years she has been with the company, she has missed only one day (because of a death in the household). And the two or three times she punched the time clock a minute or so late was when accidents kept her stalled in traffic. She has even hailed taxis to get to work on time!

"Of course," she said, "I have been most lucky in good health and have never been sick enough to miss a day's work."

Her boss, C. H. McCullough, assistant foreman of wire cutting, identification, and soldering section of Plant 1 electric bench, said:

"In fact, all of the women in our group are very dependable. We have little absenteeism—less than two days a week lost."

Mrs. Poe joined Convair SD on Oct. 27, 1950, first in sub-assembly, then six years in proofing mockup at Plant 2. She has been in her present job the last year.

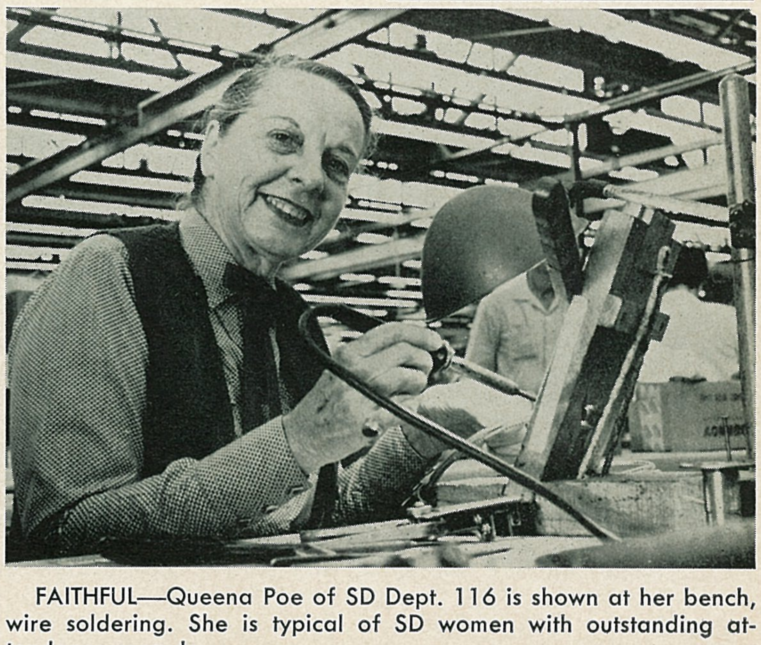
Absenteeism Drops To Low Point in Nov.

(Continued from Page 1)

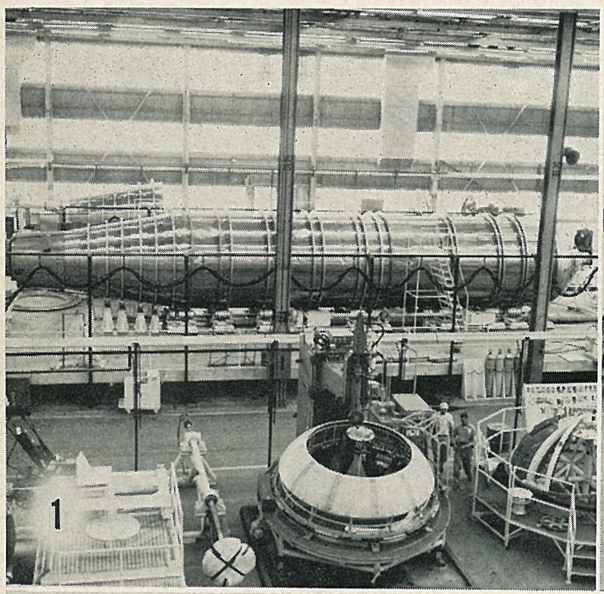
who are ill. You will recover much faster under proper care. However, if not ill, we need you.

"Even though in the larger departments it may not be readily apparent to the individual, each absence affects the whole. The fewer absences we have the more efficiently we can operate.

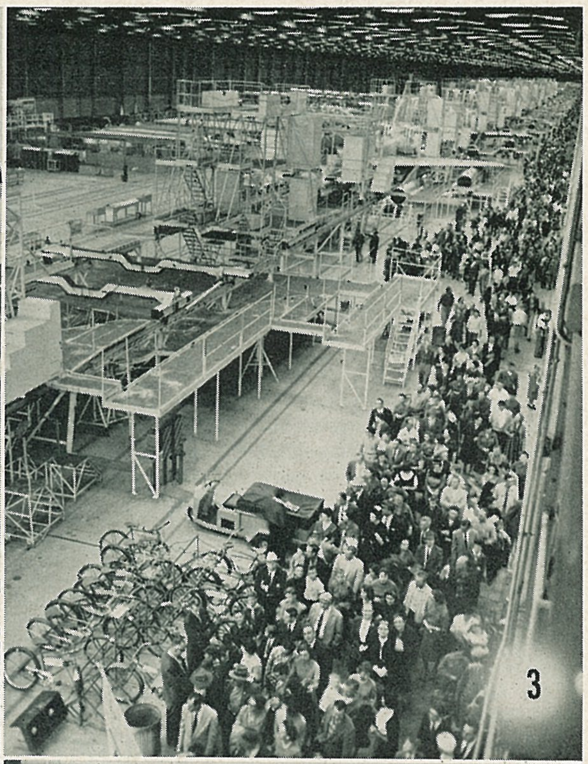
"I look forward to continued improvement in this."



FAITHFUL—Queena Poe of SD Dept. 116 is shown at her bench, wire soldering. She is typical of SD women with outstanding attendance records.



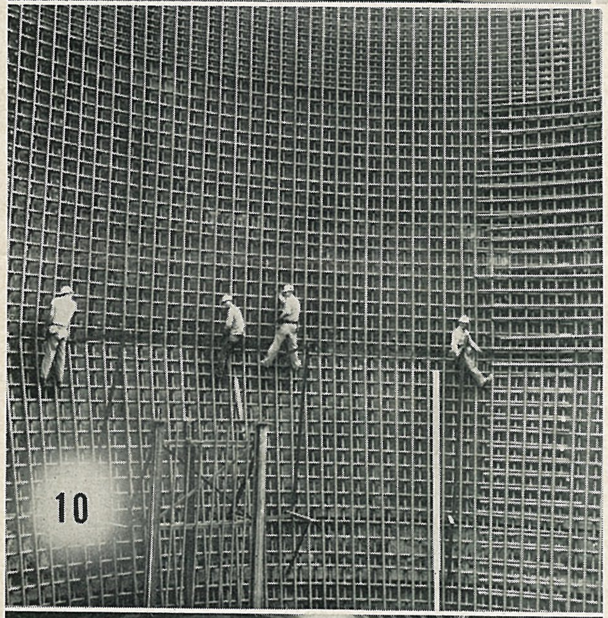


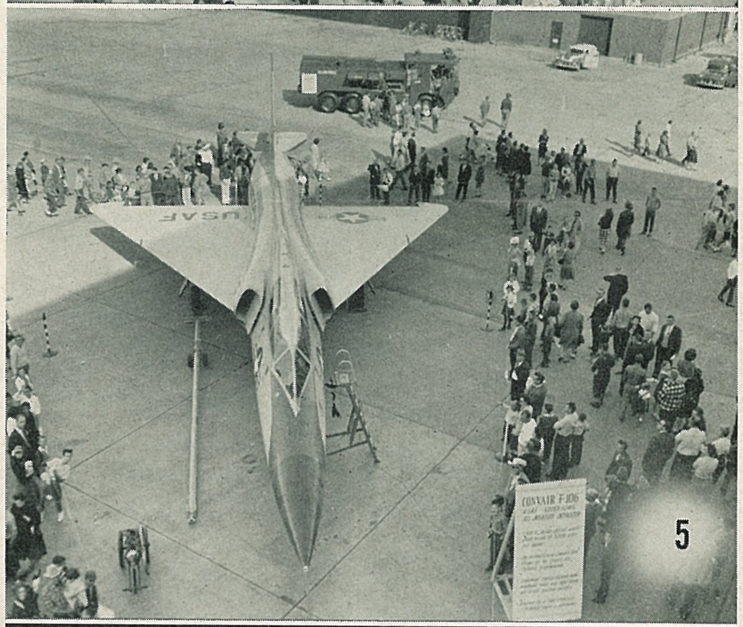


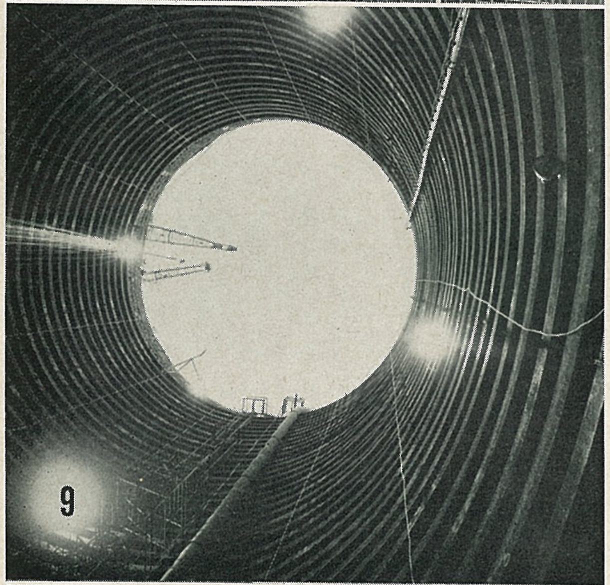


















(1) Astronautics manufacturing at SD's Plant 2 is advancing steadily. Shown is first Atlas tank section manufactured there.

(2) More than 100 Convair folk, chiefly from San Diego, flew together recently for Europe trip. They are pictured here at Los Angeles prior to takeoff.

(3), (4), (5), (6), (7) These were scenes at recent Open House at Convair Fort Worth when more than 65,000 visited plant over weekend. Convair held "Family Day" Nov. 5 and general public was admitted Nov. 6. They saw B-58 Hustlers up close, as well as an F-106.

(8) Kids in Kansas are as interested in missiles as anywhere else. In response to a request from Hensner School at Salina, Kan., Gary Finley (Astro Dept. 615-9, assigned as plant engineer for Astro at Schilling AFB) paid first grade a visit, explained Atlas missile and showed color slides.

(9) Viewed from bottom of silo launch site near Lincoln AFB, Neb., it's a long way up! Light streaks are sparks from welder's torch.

(10) Iron workers on launch site near Schilling AFB cling to sides of silo as they position steel reinforcement. Astro Photographer W. H. Touchberry made this shot from entrance of tunnel that will connect silo with underground blockhouse.

(11) Vern Heger, Astro assistant supervisor, made this photo of Atlas missile on permanent display at Smithsonian Institute, Washington, D.C.

(12) A. T. Landry, formerly chief of Convair field operations at Holloman AFB, N.M., says farewell on transfer to Astro at Salina, Kan. Congratulating are M. C. Terry, J. Boaz, Don Humphreys, R. L. Bowers, O. L. Todd, F. R. Fitzmaurice, N. F. Moore.

* *

Imposing Family

Explosives Authority For FW Relaxes With His Menagerie

Picking up stray cats is relaxing when you spend your working hours setting off explosives.

George E. Veatch, a Convair FW explosives consultant for three years, has at least 15 cats at the home he shares with his mother at 9512 Santa Monica, in Westland, Texas.

His pets also include:

Fifteen dogs of various breeds, including pedigreed hunting and racing hounds. His favorite is valued at $2,500.

Parakeets, rabbits, pheasants, raccoons, chickens, ducks and turkeys complete the Veatch menagerie.

"A man who does my kind of work has a nervous disposition," Veatch explains in what many would consider an understatement. "I find that caring for my animals relaxes me.

"My work isn't dangerous. But it's a mental strain, avoiding mistakes."

Veatch's main work with Convair is in the dynaform area, where parts are formed with the controlled use of explosives.

He has dynaformed more than 6,000 parts in the past three years, with resulting scrap totaling less than 1 per cent.

Precision at work is a necessary habit with Veatch.

A few years ago he was hired to dynamite the excavation for a basement for a West Texas drug store that was doing a thriving business.

The store never closed its doors while the explosives were being charged.

"They broke a few glasses," Veatch admits. "But the waitresses had 'em stacked wrong."

Veatch started "shooting" oil wells in the Ranger-Breckenridge, Texas, area with liquid nitro when he was only 17. He served as a demolitions expert in the Navy and was wounded on Guadalcanal in World War II.

His work as an explosives expert has taken him to every state in the Union and to Mexico.

Veatch recently invested $800 in a special trailer to transport his valuable hunters and racers, including B-58, Nature Boy, Arkansas Traveler and Texas King, all famous in dog-racing circles.

Two of his hunters currently are "leased" to a party hunting in Mexico.



ANOTHER "B-58" — That's name of racing hound owned by George Veatch, Convair FW explosives consultant.

Maxion to Instruct Jet Systems Class

Don Maxion of Convair SD customer service will be instructing a course in Jet Aircraft Systems at San Diego Junior College during the spring semester.

Open to anyone employed in the aircraft field or allied occupations, the course covers systems of Convair jet tranports as well as Boeing 707, Douglas DC-8, and Lockheed Electra. Specific systems studied include cabin pressurization, aircraft electrical systems, fuel systems, thrust reversers, and wing spoilers.

Registration will be taken at the first session Jan. 31. Further information may be had from the student personnel office, 1425 Russ Blvd., or from Convair SD educational services.

Nagging Conscience Finally Gets Results

An anonymous former Convair FW employee has an excellent, if somewhat belated memory.

He recently sent $25 in cash to Convair "in payment for tools not removed from my box when terminated in 1951."

SCIENTISTS CONFER AT DAINGERFIELD

B. A. Erickson, special assistant to B. G. Reed at FW, explained unique features of the B-58 at a Nov. 15 dinner meeting in Longview, Tex., attended by 27 propulsion scientists and technical people from throughout the country.

Conferees had just completed a panel discussion at the Ordnance Aerophysics Laboratory operated by Convair Daingerfield.

Host at the dinner was J. E. Arnold, Convair Daingerfield manager, who said that air-breathing engines of the future were covered in a "Bumblebee" propulsion program panel discussion held at the laboratory.

"Bumblebee" is the code name for a continuing program begun in World War II. The Daingerfield research facility has participated over the years in the work which led to many of today's generation of air-breathing engines, such as ram-jets, turbojets, and others.

Top Level Meeting Convenes at FW on Numerical Control

Fort Worth was scene of a top-level interdivision numerical control meeting Nov. 9-11. FW host was E. W. Feddersen, chief of manufacturing development and research.

Attending were J. H. Famme, General Office; Weldon Graham, General Atomic; Ronald E. Smith, Convair Pomona; Hal Holmerud, Convair Astronautics; Wes Ulemond, Stromberg-Carlson, Los Angeles.

Also, A. Ocone, Convair Fort Worth; J. A. Gesiakowski, Convair San Diego; Harry G. Cooper, Convair San Diego; William H. Peirce, Electric Boat; William E. O'Brien, Convair Astronautics; Dan C. Wilson, Convair Fort Worth; Al P. Langlois, Convair San Diego; S. R. Carpenter, Convair San Diego; H. D. Meade, Stromberg-Carlson, San Diego; W. K. Ebel, General Dynamics, Washington; B. J. McWhorter, Convair Fort Worth.

J. B. Rankin of Fort Worth was conference chairman.

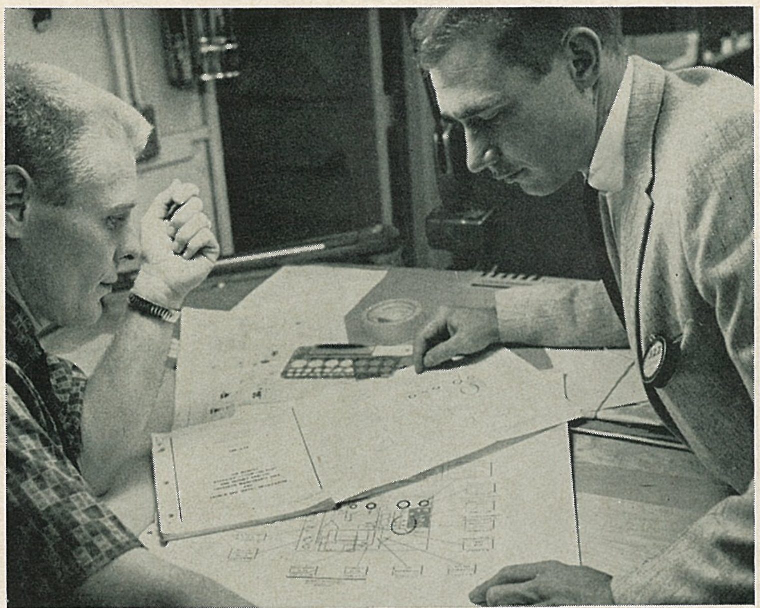
Club Members at FW Attending Seminars

Convair Management Club will send about 40 members to various management seminars during the upcoming "seminar season."

W. F. Sides, seminar committee chairman, said tentative plans are to send members to seminars at TCU, SMU, University of Texas, American Society of Quality Control, and American Society of Training Directors.

"We'll also consider others which might prove beneficial to some of our members," Sides said.

J. R. Dezelle, J. C. Kane and J. D. Dupre attended the Texas Personnel and Management Association Conference at University of Texas in October.





CONSULTATIONS—In top photo G. M. Norris, left, engineering illustrator, and D. M. Robinson, writer, discuss revisions to job-oriented manual on missile hydraulic system, while in lower photo Dottie Daub, illustrator, Clayton Ross and Frank Stankis, writers, compare notes on preparing Astronautics technical manuals.

Research-Writing Task Takes 2,000 Man-Years

Convair Astronautics' "battle of the books" passed a significant milestone recently by completing shipment of more than 400 separate technical manuals to Warren AFB, Wyo.

As the 564th Strategic Missile Squadron became operational, Astro provided a complete library describing the "care and feeding" of the missiles.

As integrating contractor, Convair is responsible for all Atlas manuals. This includes operation, checkout, inspection, troubleshooting and maintenance of the overall weapon system, its individual systems and sub-systems, associated ground support equipment and "real property installed equipment" (RPIE).

"This is the largest single documentary task in the history of modern weaponry," says G. R. Spitzer, chief of support publications. "It has involved more than 2,000 man-years of research, data verification, writing, illustrating, field verification and publishing effort."

The manual program began in 1957 when planning for the operational Atlas system got under way. It continues at an accelerated pace today as new complexes take shape throughout the country.

As blueprints flow from the drawing boards, experienced writers begin a never-ending task of data compilation and modification to keep pace with development of equipment and maintenance requirements.

Actual writing is often a cooperative effort with several writers taking part in assembly of the preliminary text. They gather and interpret engineering data, shaping it into remove-and-replace, troubleshooting, servicing, repair, and checkout instructions. An art section illustrates the text to clarify complex step-by-step procedures with diagrams, photographs, schematics.

Each individual "technical order" (manual) is organized to be of maximum use to Air Force technicians. Included in the wide range of information is a series of illustrated parts breakdowns of each piece of equipment.

Preliminary handbooks are reviewed by service engineers for reference to special tools and test equipment and to insure books agree with maintenance plans approved for each piece of equipment.

A support publications check group also reviews each handbook for format and grammatical accuracy.

Then preliminary manuals are verified against actual equipment at the base itself. Here, manual procedures are followed and corrected as required, since much of the equipment is now interconnected and operated together for the first time.

After correction and revision, the final handbook is prepared.

Following review by Air Force teams, official technical orders are printed.

The Warren AFB manuals are only one part of the handbook task. Other books apply to other operational and training bases, and as the overall system is improved the process of constant revision goes on.

As the books become "best sellers" for missilemen, Astro's support publication department continues its work, insuring that other complexes "get the words"—complete and on schedule.

Eight FAA Men Drilled in Jet Maintenance

First Convair jet transport maintenance training program set up specifically for Federal Aviation Agency personnel ended last week at Convair SD.

A ten-day planners' program covering salient features of Convair jetliners was presented by SD customer service for eight FAA men coming to San Diego from points throughout the country.

Since all attending the course, held Nov. 7-18, were already familiar with jet airline operation, special emphasis was given unique features of Convair jet airliners, such as Scotchweld bonding, passenger window attachment, and general structure approach, explained Don Maxion, field service representative in charge of SD transport training.

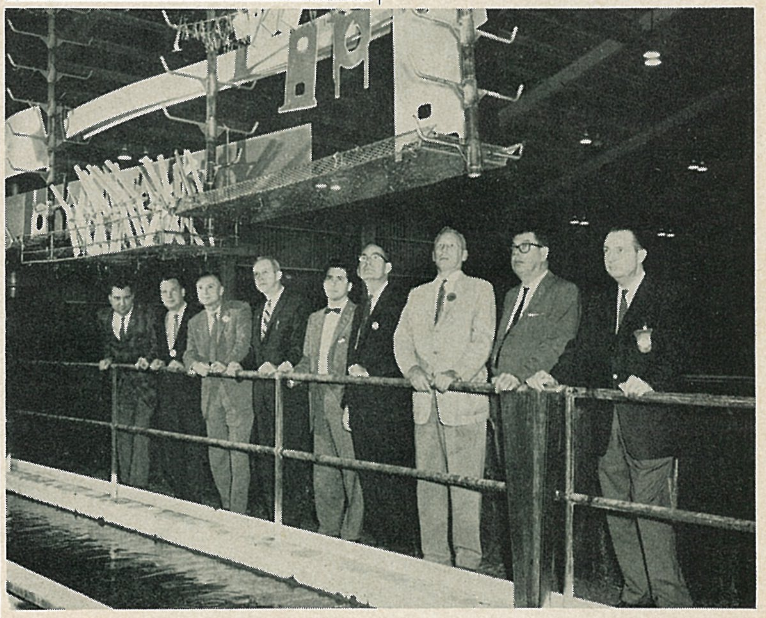
Although this was the first program arranged to FAA requirements, at least 15 other FAA key men have attended customer service maintenance training at SD during the last year and a half, said L. J. Bordelon, chief of transport service.

Other courses now in progress in customer service training section are two maintenance classes on the Convair 990 for 11 American Airline instructors in the overhaul section at Tulsa, Okla. They are entered in line and powerplant, and aircraft structures and systems courses. Following their indoctrination at Convair SD they will be setting up training programs for American Airline maintenance people at AA bases throughout the United States.

Helping to coordinate American Airline instruction at the Tulsa headquarters, field service representatives from Convair SD are carrying latest information on Convair jetliners to the airline main base. C. H. Williams, R. E. Nixon, and W. W. Kinney returned to Convair SD recently after assisting in putting actual training classes into motion at the American Airline headquarters. In projecting Convair jet transport training beyond the SD classroom program, Convair representatives will review subject material with airline instructors, bring them up-to-date on latest changes, clarify specific points, answer questions, and help organize airline courses.

A. Grimsoe, training consultant in SAS training department, is at San Diego from Norway to take the same training with American Airline personnel.

Final Swissair-SAS training program started this week for 30 key personnel. About 100 will have been at San Diego for Convair 990 maintenance training at the conclusion of the current course, third in a series of three. The present four-week program ends Dec. 15.



DIPPED—FAA personnel, at Convair SD for jet transport maintenance training, watch Convair jet parts dipped in alodyne tanks in Scotchweld preparation area. They are (left to right) L. C. Kalusche, Atlanta, Ga.; R. A. Burbick, Washington, D.C.; E. W. Murphy, Kansas City, Mo.; W. T. Zendler, New York City; F. S. Cardone, Los Angeles; J. C. Butler, San Diego; M. W. Numbers and M. P. Carroll, Kansas City; and J. D. Kennedy of Convair SD Dept. 15-4.

NEWS FROM OTHER DYNAMICS DIVISIONS

General Dynamics Corporation, created in April, 1952, as successor to Electric Boat Company, is composed of seven divisions and a Canadian subsidiary, Canadair Limited, of Montreal, airframe builders. The divisions are:

Convair, head offices at San Diego, Calif., aircraft, missiles, and space systems.

Electric Boat of Groton, Conn., submarines.

Stromberg-Carlson, of Rochester, N. Y., telecommunications, electronic equipment.

Liquid Carbonic of Chicago, Ill., carbon dioxide producer, industrial and medical gases.

General Atomic of San Diego, Calif., nuclear research, development, production.

Electro Dynamic of Bayonne, N. J., electric motors, generators.

Material Service Division, Chicago, Ill., building materials, concrete products and coal.

* * *

Dynamics, Pace Praised In Submarine Triumph

NEW YORK CITY — Rear Adm. W. F. Raborn, USN, the Navy's Director, Special Projects, was warm in his praise of General Dynamics Corporation and its board chairman, Frank Pace, recently in connection with the Polaris missile and the submarine George Washington.

In a letter to Pace, the admiral wrote:

"I wish you could have been with me aboard the George Washington at the time of the first successful Polaris launching and, also to have shared the outpouring of congratulations . . . which followed. You very deservedly should have been a participant in both because without your understanding, dedication and ability neither would have happened.

"My emotions aboard George Washington were a compounding of deep admiration for the magnificent crew, total pride in the consummate skill of the Navy-Industry team which made the FBM system possible, and a fervent prayer that this weapons system, the most potent yet devised by man, would be successful and thus be a major contributor to mankind's freedom everywhere . . .

"While to some the successful launchings were the end of a Herculean effort, those such as you, close to the program, know that it is only a beginning. A beginning which ends only when the FBM submarines are deployed in force as our first line of offense and guardians of our freedom . . .

"Please accept my sincerest gratitude and admiration of you and those who work for you."

Dynamics' Exec. Offices Moved

NEW YORK — Executive offices of General Dynamics Corporation were moved this month from 445 Park Avenue to the General Dynamics Building, Rockefeller Plaza, New York 20. The newly-renovated building was formerly known as the Time & Life Building.

General Dynamics will occupy six floors—27th through the 32nd (75,534 square feet), with an option on the 26th floor to provide for future expansion if needed. In addition, the Corporation will have the use of a large display area on the ground floor, adjoining the lobby.

The building space, on the east side of Rockefeller Plaza between 48th and 49th streets, is leased from Rockefeller Center, Inc. An extensive remodeling of the entire 36-story structure has been under way since early this year.



FULL HOUSE—Japan Air Lines personnel, at Convair SD for flight training courses, crowd into new 880-M cockpit procedures trainer set up this month in Bldg. 4, Plant 1. In pilot's seat, at far right, is Capt. Yasuji Goto, while grouped around him are Hiroshi Kodera, Daijiro Murayama, Wataru Takahashi, Ichiro Yamaguchi, Kyoichi Terashima, and Yoshimi Okawa, all flight engineers from Tokyo.

Japan Air Line Flight Crewmen Complete SD Training Program

Seven Japan Air Line flight crewmen spent last week learning flight simulation in Convair SD's new 880-M cockpit procedures trainer as they completed a five-week flight training program at the SD plant.

The trainer, in which each of the JAL pilots and flight engineers spent 15 hours, arrived in the plant just in time to be converted to the JAL version and be put into use for the production flight training.

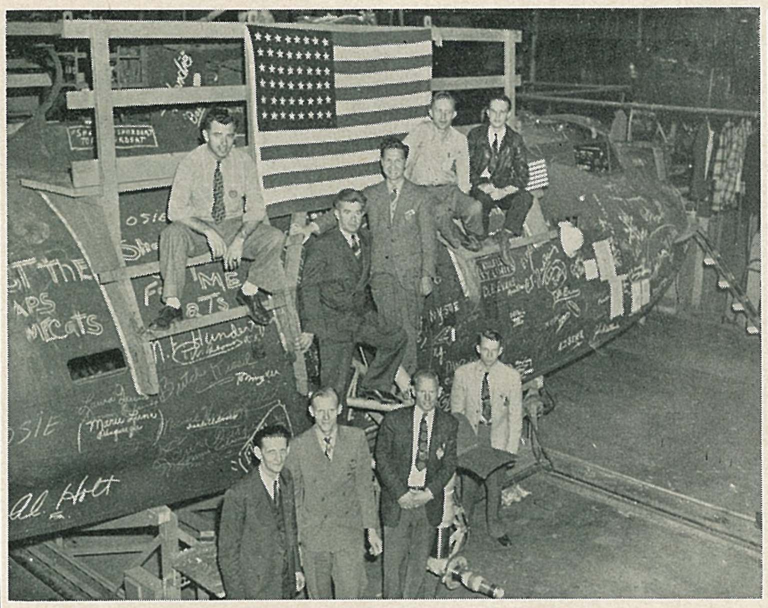
A crew from Burton-Rodgers, Inc., which built the trainer to Convair's needs, and Convair SD men worked around the clock to install it in Bldg. 4 training area and make it operational for the Japanese airmen.

Larry Scrivener and J. B. Van Houten instructed the JAL men on the trainer which simulates an actual cockpit of a Convair 880-M jetliner.

Japan Air Lines expects to take delivery on their first 880-M early next summer.

Now at San Diego for a two-week production flight course on the 990 are two Swissair pilots, Capt. Hugo Muser, chief flight instructor, and Capt. Niklaus Wiedmer, deputy chief flight instructor, both from Zurich.

C. L. Johnson and C. L. Falkenthal, both SD flight engineer-instructors, have arrived at Taipei, Formosa, where they will be until Dec. 22 giving flight training to Civil Air Transport flight crews.



OUR LAST "CAT"—No. 1943 Catalina is shown just before leaving assembly line. It was last built at San Diego. Bottom, left to right, are B. E. Reid, C. R. Phillips (now a Dept. 160 foreman at SD), G. W. Lane, G. A. Cummings; top, Tom Donally, W. M. Basile (presently SD Dept. 160 foreman), F. E. Worster, Earl Hunt, J. E. Switzer.

Catalinas Used For ASW Off So. America Coast

(With this installment—No. 48—of Convairiety's continuing history of Convair, general account of PBY action in World War II is concluded. Note Maj. Gen. Perry B. Griffith's personal account of PBY incident.)

A South American patrol (PBY) was established in the opening days of the war. Six PBY-5s of Patron 52 arrived Dec. 11 at Natal, Brazil, eventually headquarters of Fleet Air Wing 6. Cats patrolled the entire rim of Brazil.

(Patrons 83 and 94 incidentally, were reviewed by President Roosevelt when he stopped at Natal in January, 1943, returning from the Casablanca Conference.)

The PBYs saw plenty of action after the Nazis opened a U-boat blitz off Brazil in the summer of 1943. By then the subs had adopted the tactics of staying on the surface and dueling planes. Lt. (j.g.) Frank F. Jare, piloting a Patron 94 Catalina, was killed in such a fight with U-590, but a sister Cat flown by Lt. (j.g.) S. E. Auslander found the sub two hours later and sank it with bombs.

On July 21 Auslander had an indecisive hour-long battle with U-662 while escorting an 18-ship convoy. The next day the sub was sunk by a Cat piloted by Lt. (j.g.) R. H. Howland. On July 24, three planes attacked the U-199 and the kill was credited to a PBY of the Brazilian Navy.

On the far side of the Atlantic, Patrol 63 joined the great Allied anti-submarine offensive in the Bay of Biscay in July, 1943. Equipped with MAD (magnetic airborne detector), this outfit bore the nickname "Madcats." On Aug. 1 one of its PBYs, the "Aunt Minnie," was attacked over the bay by eight or more German Ju-88s. Minnie bagged one fighter before she was shot down. The three survivors included Lt. William P. Tanner, the Catalina pilot who had sighted the Japanese midget submarine at Pearl Harbor.

The Madcats' detectors proved ineffective over the broad reaches of Biscay, but helped seal the Straits of Gibraltar against U-boats after VP-63 was shifted to the Moroccan Sea Frontier. There the Cats of Fleet Air Wing 15 (Capt. T. A. Tanner) operated from Port Lyautey and Agadir.

In the Pacific

AF General Recalls Sea Battle To Save Downed PBY and Crew

(Following are excerpts from a letter written Nov. 3, 1960, to Convairiety by Maj. Gen. Perry B. Griffith, USAF Deputy Inspector for Safety, Norton AFB, Calif.)

"I read with interest the article regarding Catalinas during early war days, appearing in the Oct. 26 issue of **Convairiety.**

"This rugged bird proved its worth to me on an occasion in 1943. I was in command of Air Force, Navy and Army units in the Galapagos Islands in the East Pacific. A Navy pilot named Ens. Robinson from our VP squadron got lost between Ecuador and the Islands and was forced to make a water landing about 400 miles from us. We located him, and deck-loaded the Air Force 104-foot crash boat with 50 drums of 50-gallons each high octane gas and dispatched her to the scene. It took four days to rendezvous boat and PBY, as the boat suffered considerable difficulty with radio and engines, and we were forced to keep a 24-hour watch with B-24s vectoring the crash boat on her course to the PBY.

"When both craft were as close as a mile, personnel still couldn't see each other because of the seas, and the swells were too high to land other flying boats all this time. Finally the crash boat and the Catalina were lashed together. Although practically everyone on the two boats was seasick, they were able to transfer enough fuel for a one-time flight—provided the engines would start—into our seaplane berth. All of the PBY crew were alive, but all were seasick, sunburned and practically famished. In the meantime, two of the crash boat's engines had gone out, and I was now more worried about her than the PBY. The Humboldt current propitiously had swept the aircraft 200 miles closer to the islands, and this, I guess, is what eventually saved the crash boat.

"After about 95 hours without sleep, while circling the PBY in a B-24, I heaved a sigh of relief to see the engines start. With the bird airborne, we led it back to Seymour Island, as both radio and compass were out. The PBY suffered practically no damage and was on operations again very shortly.

"As an aftermath, the crash boat came limping into port a day and a half later on one engine, which gave out as she entered the mouth of the bay.

"Here was a good wartime example of cooperation between the Air Force and the Navy, and, thanks to your rugged aircraft, the crew got back. Little did I know in those days that I could be as interested in safety as my job now requires me to be, but, in fact, I guess I was then.

"With sincere best wishes for continued success."

Rides to Polls Given By 'Roamin' Chariots'

Six Convair Astronautics men, all members of the "Roamin' Chariots Car Club," did their bit to get out the vote during the recent national election.

The men made their cars available during off-duty hours to Clairemont area residents who needed a ride to the polls.

They are Bill Carrell, Dept. 220; Carl Halfpenny, Dept. 756-2; Jack Halfpenny, Dept. 732; Gordon Hook, Dept. 731; Gary Nevling, Dept. 343-2; and Bob Riley, Dept. 250.

Daughter Stars On Waring Show

MSTS—When the Fred Waring Show toured through Southern California, an Astronautics couple here made it a point to catch as many performances as possible, for a good reason—their daughter is one of the show's featured performers.

R. E. "Dick" (Dept. 575-2) and Bertha (Dept. 575-1) Reynolds have watched their daughter, Lette Rehnolds (a professional name), climb her way toward the top in the entertainment world.

When Reynolds was working for Convair Fort Worth, Lette was gaining recognition for her range of talents. She appeared with Pat Boone on a television show from Fort Worth.

Lette also found time for study of fine arts at Texas Christian University and later at Monterey, Calif. Last summer she was a member of the Guy Lombardo "Hit the Deck" show.

Waring signed Lette this fall and she is currently on an extensive tour with that group's "Stereo Festival" show.



SHOW BIZ — Lette Rehnolds (stage name) shown with father, R. E. Reynolds of MSTS, has earned praise in show world as singer, entertainer. Mother, Bertha, also of MSTS, designs her costumes.

"Variety," show business paper, was high in its praise of Lette's Waring show performance.

Mrs. Reynolds doubles as Lette's costume designer, setting up fittings whenever they can get together.

Lette is married to Marshall Williamson Jr., now a doctorate candidate at the Juilliard School of Music, New York, where he is also a music teacher.

FW Lensman Winner In National Contest

Ernie Lain, FW photographer, is a winner in a national photography contest.

Lain took second in the color category of competition sponsored by Instruments Division of the Budd Co., winning $150 and high praise on his skill.

Lain submitted a color photo of a section of a B-58 landing gear under stress testing.

Astro Men to Join In Metals Parley

Two Convair Astronautics materials research engineers, Dr. J. F. Watson and J. L. Christian, are slated to take part in a metallurgical round table in Los Angeles Dec. 7.

Dr. Watson will be moderator for the program on "Behavior of Metals at Low Temperatures Including Cryogenic Problems."

Four Outstanding CIPs Bring Idea Men Honors

Four members of Convair San Diego Management Club who have saved the company almost $200,000 were singled out for honors at the club's Nov. 16 meeting.

Each of the CIP submitters received a MacSave-it trophy as the club caught up on the monthly awards which were delayed until a regular business and social meeting.

Those receiving awards and their CIP savings totals were: Claude E. Boyd (Dept. 197-4), $12,392, July; Wendell Durflinger (Dept. 31), $36,020, August; A. J. Woods (Dept. 400), $113,265, September; and J. W. Hammond (Dept. 148), $31,488, October.

D. L. Johnson, SD manager of systems and procedures, made the presentations. He pointed out that the CIP dollar savings were in terms of time, man power and material.

Boyd's savings were realized mainly in material. The assistant supervisor recommended using X-ray paper instead of X-ray film in situations which do not require the fine detail and contrast obtained with film.

Costs were cut more than half because the paper costs about 25¢ per sheet, compared with X-ray film sheet price of $1. A main area where X-ray paper is especially suitable is for inspection of honeycomb panels where crush core, void splits, loose hardware, water and plugs must be located.

Durflinger, the August winner, saved 12,508 manhours by recommending a cycle change for machining certain forgings before heat treatment. His suggestion to do most of the "finish" machining before heat treat cut in half the working time required.

The third and largest suggestion in terms of dollar savings was actually a joint effort on the part of J. R. Thompson, G. A. Clauder and Woods. Thompson and Clauder were in Dept. 292-0 when the CIP was submitted. Since then they have transferred to Astronautics.

They advised that the MB-1 ejector on F-106s entering the "test to tactical" program not be scrapped, but instead reworked and brought up to latest specifications. The recommendation was found feasible with resultant savings of more than $113,000.

The October MacSave-it came up with a practical proposal substantially cutting the time required to ring out the 880 AC and DC power distribution.

Hammond suggested that Dept. 148 ring out the power distribution, then put external power on airplane, first pulling all circuit breakers and fuses. Previously, the power could not be put on plane until all circuits, both electrical and radio, had been rung out with the continuity light.

MacBride Cites 'Unique Record'

(Continued from Page 1)

point now where it encompasses a spectrum of competence not exceeded by any other company in the world.

"We are continuing to strive for the maximum impact, not only with a division effort, but with a corporate effort," he said.

MacBride praised the foresight and imaginative leadership of John Jay Hopkins, the founder of General Dynamics Corporation.

"He (Hopkins) wanted defense competence and spent a great deal of time and money to achieve that competence."

MacBride outlined the General Dynamics structure. Its early acquisitions: Electric Boat, Electro Dynamics, and Canadair, then Consolidated Vultee, Stromberg Carlson and General Atomic.

He explained in some detail the decision made by the corporation to broaden its base and expand into the more "commercial" industries, which resulted with the mergers of Liquid Carbonic, and this year, Material Service Corporation.

The evening's principal speaker was introduced to the El Cortez Hotel gathering by August C. Esenwein, executive vice president of Convair. Also seated at the head table were R. H. Biron, Convair vice president—administration, E. P. Wohl, Convair vice president—planning, and R. C. Loomis, vice president and Convair SD manager.



HOLLOMAN "HUNTERS"—Winners of "Hunters Special" golf tournament held this month (Nov. 5) at Holloman AFB are, left to right (standing), Bob McDonald; Rocky Jones, HAC pilot; Barney Prather; Norb Moore; and Pat Ancel. Kneeling are John Martinez, O. Ott, and Berry Murphy.

Salvage Yard Schedule Set

Employee stores (salvage yard) operations at Convair San Diego and Astronautics have now switched to an alternate Saturday schedule. That is, salvage sales at each operating division will be on different Saturdays.

Convair San Diego salvage sales will be held Saturday (Nov. 26), Dec. 10. Astronautics salvage yard will be open on Dec. 3, Dec. 17.

Employees from either operating division may shop at the salvage yard of either choice. Employees must show their Convair identification at both locations and are allowed to bring one non-employee to help them carry away their purchases.

Convair San Diego salvage yard is open from 7:30 a.m. to noon on Saturday and Astronautics hours are from 8 a.m. to noon.

The Astronautics yard is located at the northeast corner of the Astro reservation, while the San Diego yard is at the north end of Plant 1 near Gate 5.

Movies at Discount For SD, Astro Folk

Discount rates are continuing Fridays, Saturdays and Sundays for Convair San Diego and Astro families at the Adams Theater, 33rd and Adams St.

With Convair ID card admission is 50¢ for adults; children under 12 are free when accompanied by adult.

Movie fare Nov. 25-26-27 will be "The Adventures of Huckleberry Finn," and "Third Man on the Mountain." Showing Dec. 2-3-4 will be "Bells are Ringing," and "But Not for Me."

Volleyball League Meeting Mondays

A special Volleyball Club for enthusiasts of the sport at Convair San Diego and Astronautics is meeting each Monday at 7 p.m. in the Balboa Park Federal Bldg.

Two-man volleyball is the style now being played. Later depending on the number of players, leagues may be formed, said Pete Beyrer of the SD CRA office. All interested are invited to participate.



MONEY MEN—Four Cost Improvement Proposal submitters who have saved company almost $200,000 received MacSave-it Awards at SD Management Club meeting last Wednesday. D. L. Johnson, manager of systems and procedures, made presentations. From left: J. W. Hammond (Dept. 148), A. J. Woods (Dept. 400), Johnston, Wendell Durflinger (Dept. 31), and C. E. Boyd (Dept. 197-4).

Management Club Again Offers Son, Daughter Scholarships

Plans for the 13th annual Convair San Diego Management Club scholarship contest are getting under way with the organizational meeting of the new committee this month.

Keith Blair, committee chairman, said that eligibility rules and application blanks will be in the hands of all school officials in the San Diego area shortly after the Christmas holidays. Posters and notices will be placed throughout the plant at the same time.

Generally speaking, he said, all sons and daughters of San Diego operating division and General Office men or women will be eligible if they will be graduating from high school in 1961 and can fulfill the other requirements.

Awards will again be scholarships of $1,000 each for two students, one boy and one girl; and $100 U. S. Savings Bonds to the two boys and two girls who finish as runners-up in the annual contest.

Serving on the committee are the following (with department and extension numbers): Blair (Dept. 6), ext. 1543; H. E. Mayer (Dept. 6), vice chairman, ext. 1657; R. H. Nall (Dept. 3), secretary, ext. 1827; Ray Lange (Dept. 4), board of control representative, ext. 83-2111; Kirk Abbey (Dept. 7), ext. 1742; E. H. Amory (Dept. 34), ext. 83-2605; Glen Munkelt (Dept. 15), ext. 2623; Clair Taylor (Dept. 400), ext. 2912; Barbara Vincent (Dept. 91), ext. 2215; and J. W. Woodhouse (Dept. 190), ext. 1314.

Any may be contacted for information.

Volunteers Honor SD's Ada Nickerson

Ada Nickerson, Convair SD parachute rigger, was named "Volunteer of the Month" for November by the Volunteer Bureau of San Diego County in recognition of her work with the blind.

She was honored for her nine years of volunteer service as member and secretary of the Blind Recreation Center.

Besides her spare-time work for the blind, she has driven for the Red Cross Motor Corps and the Indoor Sports Club, and has donated 32 pints of blood to the San Diego Blood Bank.

On Tuesday nights each week, Mrs. Nickerson teaches an English class for cerebral palsy victims under the Adult Education program of the SD City Schools.

Elwood Bryant New Ops. Mgr. For Astro

W. L. Young, one-time works manager at SD Plant 1, and until recently operations manager at Astronautics, has been shifted to the staff of August C. Esenwein, Convair executive vice president. Currently he is on loan to San Diego operating division, reporting to Robert C. Loomis, manager.

Young was succeeded at Astronautics by Elwood D. Bryant, former works manager for Astro.

'Material Shortage' Function Created As Liaison Group

A new "material shortage" function in Dept. 44 at Convair San Diego Rose Canyon was formed last month to strengthen shop liaison among material department, manufacturing control and production.

The new function, which is designated 44-7, is under J. C. Kice, general supervisor. Supervisors R. J. Archibald and R. L. Kellogg have been placed in respective charge of the Rose Canyon shortage coordinating group and the shop shortage coordinating group.

Joe Freeman, material specialist, has been placed in charge of coordinating the 880 material shortages; W. A. Moss is handling similar responsibilities in connection with the 990 program.

Also included in the new Dept. 44-7 function designation is military spares control, formerly Dept. 44-3, under V. T. Broach.

Sale of Christmas Trees Begins Dec. 15

Christmas trees will be offered for sale at discount prices to Convair people again this year.

A wide variety of trees of all sizes will go on sale Dec. 15 at the usual location, in front of the CRA Clubhouse on Pacific Highway across from Plant 1, said W. E. Rickman.

Douglas firs and silver-tipped firs will be sold at half of usual retail prices until Dec. 22. An attendant will handle sales every day of the week from 10 a.m. until 10 p.m.

Next Meeting For Speakers

Next regular meeting of Convair Toastmasters #457 is set for Monday evening (Nov. 28) in the executive dining room of the Convair SD cafeteria at Plant 1.

All SD and Astro men interested in the speaking group are invited to attend the 6 o'clock dinner meeting. Although the club is nearing its limit of 30 active members, a few openings still are available.

There is plenty of room for associates or Convair men wishing to visit the club sessions, said Don Quinn, club spokesman. For information call either Quinn (Dept. 8) at ext. 1264, Plant 1, or Duane Johnson (Dept. 6), ext. 1512, Plant 1.

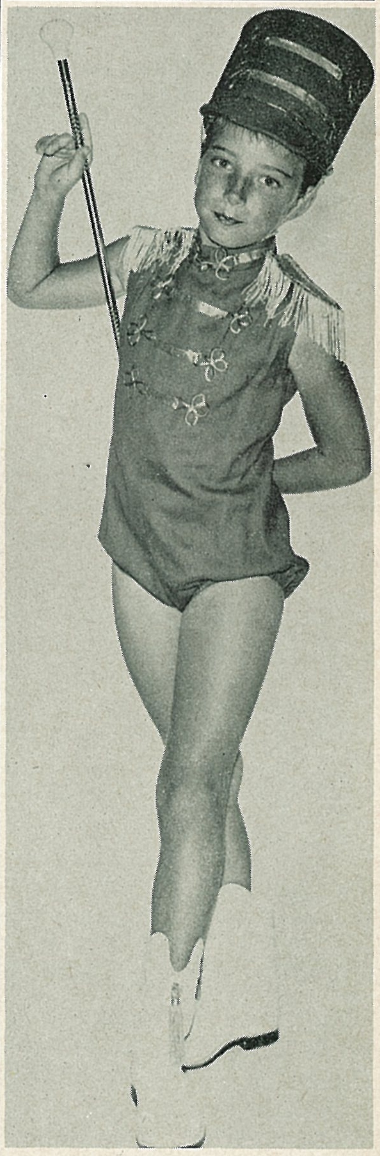
Convair Toastmasters and their ladies joined in the annual San Diego area Toastmasters' social get-together last Saturday (Nov. 19). The "Fall Frolics" dance and buffet was held in the War Memorial Bldg., Balboa Park.

Ballroom Dancing At New Location

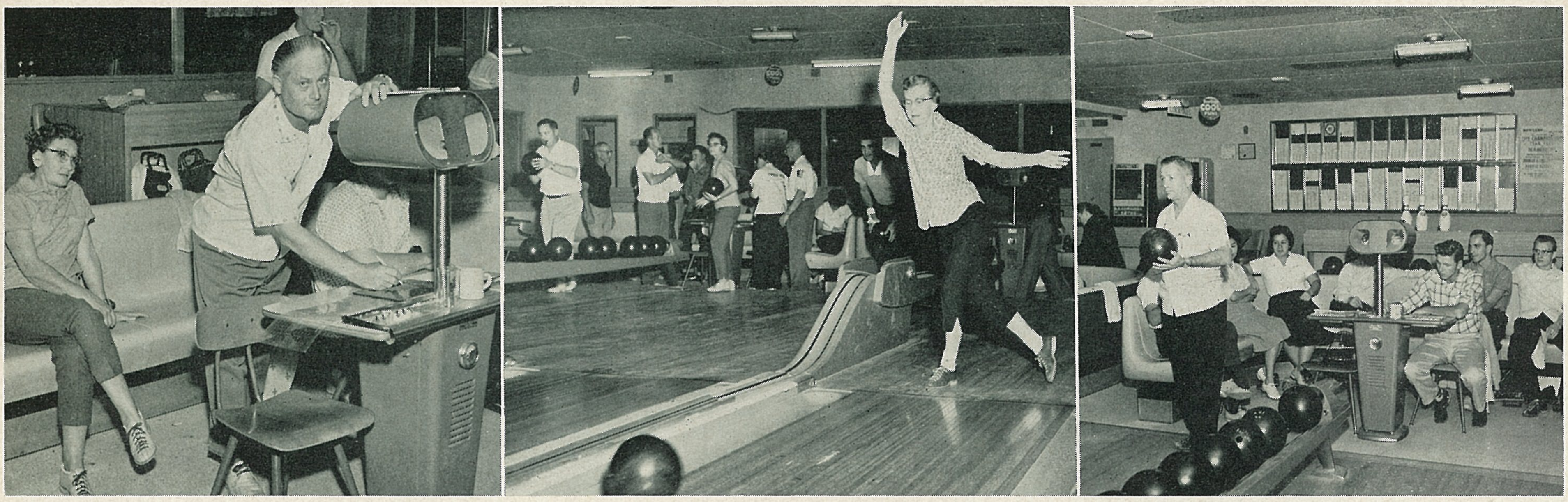
Transfer of CRA-sponsored ballroom dancing classes, offered jointly by CRA at Astronautics and Convair San Diego, has been completed.

Formerly held in Pacific Ballroom, downtown, classes now meet at a new studio at 8241 La Mesa Blvd., La Mesa. Current classes are closed to new members. However, individuals or couples may arrange discount rates for private instruction until they reach proficiency level of the present classes, then join them.

Private lessons may be arranged by calling HO-3-7545.



CONVAIR CUTIE — Marcella Jones, 10, placed fifth in state Nov. 12 in Juvenile Strutting Division of State Baton Twirling Contest at Whittier, Calif. She is daughter of Marshall (Dept. 401) and Miriam (Dept. 215) Jones.



KEG CAPERS—Hundreds of Convair SD bowlers are rolling in CRA-sponsored leagues throughout San Diego area. Photos show typical Wednesday night activity at Pacific Recreation where a mixed scratch league and handicap league hold forth. In photo at left is Jim Hayman, CRA bowling commissioner, who shares Convair keg recreation responsibilities with Co-Commissioner Mike Brooks. Jean Cappelen, in center shot, sends ball down lane; at right, Dick Knapp gets set.

CRA Calendar

(Convair SD Recreation Association has some 40 activities in operation. For information on SD sports, call CRA headquarters, ext. 1245, Plant 1.)

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ARCHERY — Meeting Nov. 29, 7:30 p.m., Astro executive dining room.

BALLROOM DANCING — Classes now being held at new studio, 8241 La Mesa Blvd. For information, call HO 3-7543.

BASKETBALL—Shop leagues, varsity now forming. Contact Gil Crosthwaite, ext. 1245, Plant 1, after 1 p.m.

BRIDGE CLUB—Next session Tuesday (Nov. 29), 7:30 p.m., Hotel Barcelona, 326 Juniper St.

CAMERA CLUB—Model shoot Monday (Nov. 28), 7:30 p.m., Photo Arts Bldg., corner Park Blvd. and Village Place.

DELTA DIVERS — Boat trip Dec. 4. Call Al Jones, ext. 2909, Plant 1.

FENCING — Workouts and instruction every Friday, 7:30-9:30 p.m., YWCA, 10th and C Sts.

GARDEN CLUB — Christmas party Dec. 14, 7:30 p.m., Floral Assoc. Bldg., Balboa Park.

GOLF — Entries close Friday (Nov. 25) at 3 p.m. for CRA sweeps Dec. 3-4 at Torrey Pines. Call ext. 1705, Plant 1.

JUDO—Workouts and instruction every Thursday in CRA Clubhouse, Pacific Hwy., 6-7:30 p.m.

MOVIES—Reduced-price movies Fridays, Saturdays, and Sundays at Adams Theater, 3325 Adams Ave. Adults: 50¢; children under 12 free, if accompanied by adult.

PISTOL CLUB—Next regular monthly shoot Sunday (Nov. 27) San Diego Police Pistol Range, 9:30 a.m.

RADIO CLUB — Next meeting Thursday (Dec. 8), 7:30 p.m., Harbor Drive headquarters.

ROAD RUNNERS—Outing to park in Escondido area Dec. 3-4.

SKI CLUB — Meeting 8 p.m. Dec. 6 in executive dining room of new cafeteria.

SQUARE DANCING — Party night Nov. 26, 8 p.m., American Legion Hall, 4061 Fairmount Ave.

VOLLEYBALL — Two-man leagues now forming. Meet every Monday at 7 p.m., Balboa Park Federal Bldg.

Garden Club Plans Christmas Party

A Christmas party will be held for members and children of members by the Convair SD Garden Club Dec. 14 starting at 7:30 p.m. in the Floral Association Bldg., Balboa Park.

Adults are asked to bring a present for an adult. Children should bring gifts to exchange with another child. A maximum of $1 per gift has been set. Entertainment is being arranged by the club.

Holiday Ski Jaunt Scheduled by Club

Plans for a New Year's weekend trip will be firmed by members of Convair SD Ski Club at the Dec. 6 meeting at 8 p.m. in the executive dining room of the new cafeteria.

Reservations for the holiday junket will be accepted at the meeting. Destination will be either Big Bear or Mammoth Mt. depending on snow conditions.

68 'Runners' Make Outing

Sixty-eight members and guests of the Convair SD Road Runners turned out for the November outing in the Anza Borrego Desert State Park.

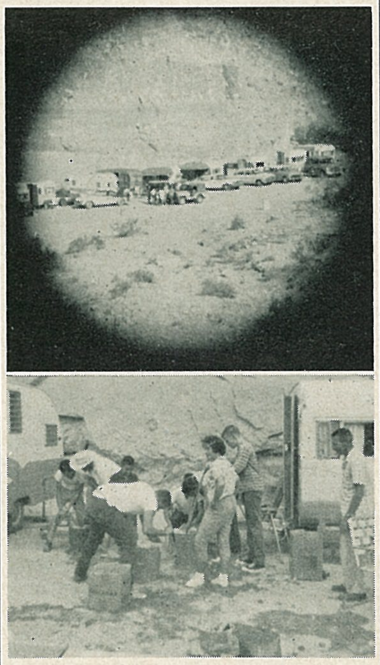
Teen-agers directed the event and topped off the potluck dinner with seven gallons of homemade ice cream, said Harold Perkins, club president.

He added that members were especially appreciative of the services offered by the park ranger George Leach who recommended the campsite, took travelers on a guided tour of the area and passed along interesting observations on the history of the locale.

Tentative plans for a Dec. 3-4 outing to the Escondido area were discussed by club members at a meeting last Friday.

Movies and slides of club treks were also shown at the meeting. Jim (Dept. 6) and Silvia Bethard presented an interesting account of a travel trailer trip they took to Alaska.

Charter memberships in the Road Runners were closed at the Nov. 18 meeting. Prospective members must now attend at least two meetings and vehicles will be given a safety inspection before membership is granted.



DESERT JAUNT—Cliffs tower more than 500 feet over campsters and travel trailers of Convair SD Road Runners at entrance to Split Mountain in Borrego Desert. Photo was taken through binocular. In photo at bottom teen-agers try their hand at making ice cream.

CRA Sports & Recreation Convairiety

Model Shoot to Launch Drive For New Camera Club Members

Convair SD Camera Club will launch a drive for members at a model shoot next Monday (Nov. 28) starting at 7:30 p.m. in the Balboa Park Photo Arts Bldg., corner of Park Blvd. and Village Place.

All Convair SD employees and family members interested in improving their photographic ability are invited to attend, said C. E. Schultz, CRA commissioner.

Prospective club members are urged to bring along their cameras and participate in the shoot. Models, lights and sets will be furnished by the club.

Fourth quarterly club contest conducted Nov. 14 was judged by Charles Schneider, well-known La Jolla photographer. Fifty-seven color slides and 19 black and white prints were entered in the "open" contest.

Five winners, ranked in the following order, took color slide honors: Allen Henny, J. P. Perrington, Joan Ainsworth, Bill Wallace, and Dwight Claxton. In the black and white division, Ron Ainsworth took two awards, and Allen Henny won one.

Disneyland Offers 250 Family Prizes In Special Contest

Convair SD employees who are members of the Disneyland "Magic Kingdom Club" are eligible to compete for 250 family prizes offered in a contest sponsored by the club.

Prizes include 12 all-expense weekend trips to various resort areas in the West (six are at Disneyland and the Disneyland Hotel) and 238 prizes of five 10-ride Disneyland ticketbooks each.

To enter, fill out and submit special entry postcards, which may be obtained at employee services.

Rules are simple. Employees must be members of the "Magic Kingdom Club" (applications for the club are also available at employee services) and each member may enter only one time. Deadline is Dec. 31, 1960. Winners will be notified by mail, and they must accept their prizes within 60 days of notification.

Archers Plan Joint Meeting Thursday

All Convair SD and Astro bow enthusiasts are invited to attend a joint Convair Archery Club meeting at 7:30 p.m. Nov. 29 in the Astro executive dining room.

Featured attraction will be an archery film highlighting the hunting exploits of Howard Hill and Ben Pearson.

Next Archery Club event will be a turkey shoot Sunday (Dec. 11) at the new Balboa Park Field Range. Registration will open at 9:30 a.m.

Prices Cut as Store Closes

Employees' store at Convair San Diego will close its doors Dec. 10 after 10 years of operation.

W. E. Rickman, who has managed the store for Prophet Co. since 1955, said, "Present business conditions, with the drop in employment, do not warrant our continuing with the discount store.

"At least $4,000 worth of merchandise, now on hand, will be sold during the next two weeks at less than cost."

Among items to be cleared at 20 to 40 per cent below cost are: pen and pencil sets, watches, pocket knives, cigarette lighters, manicure sets, and other miscellaneous articles. A wide stock of Delta and Convair 880 jewelry is on hand and a number of F-102A model plane sets. Besides a limited number of boxed greeting cards, no Christmas stock was ordered.

Any Convair employee anxious for good bargains in the articles remaining is urged to check the store goods immediately before they are cleared out at greatly-reduced prices, said Rickman.

The store is located adjacent to the CRA Clubhouse on Pacific Highway across from Plant 1. It is open from 10 a.m. to 4 p.m. Mondays through Fridays.

Deadline Near For CRA Golf

Golfers will match strokes for hams at the next CRA sweeps Dec. 3-4 at Torrey Pines.

Convair SD golfers have until this Friday (Nov. 25) at 3 p.m. to make reservations. Entries are being accepted at ext. 1705, Plant 1, said Ken Wulfemeyer, CRA commissioner.

Six linksmen took home turkeys at the Nov. 5-6 tournament at Circle R. Low gross leader in the first flight was Wayne Hines (Dept. 180) with a 74. Low net honors went to John Machamer (Dept. 91) with a 66.

In the second flight, George Hasti (Dept. 180) won low gross with 78, a 65 took low net for Ken Eastin (Dept. 6). Turkey winners in the third flight were Toby Hunley (Dept. 400) and Hugh Wilkinson (Dept. 180). Hunley low-grossed 92 and Wilkinson had a low net of 63.

Four Shooters 'Bag' Turkeys With Pistols

Four Thanksgiving turkeys were "bagged" at the Nov. 14 Convair SD Pistol Club shoot, Ash Bishop, CRA commissioner, reported.

B. L. Broadway (Dept. 115) automatically claimed the first bird with his 294 police match score which was high for the day. Three other CRA gobblers were awarded on a "luck" basis. Winners were Ralph Benson (Mrs. Benson is in Dept. 250), Jim Halfacre (Dept. 180), and A. B. Carlson (Dept. 68).

Ranked behind Broadway in the master class was Joe Williamson (Dept. 401-5) with 284 points. Similar scores were tallied by P. C. Dubendorf (Dept. 115) and Ralph Picard (Dept. 7) who placed first and second in the expert class.

Sharpest sharpshooter was Dorcus Utter with 275 points. Her husband, Arley (Dept. 119), was first in the marksman class with 244 points. Ranked behind Mrs. Utter was Ash Bishop III (son of the commissioner, Dept. 400-2) with 260 points. A 238 tally placed Chuck Vanderway (Dept. 6) second among the marksmen.

Ranked in the top three positions in the short national were B. L. Broadway, Ash Bishop, and Joe Williamson, with scores of 270, 269 and 268.

Delta Divers Plan Boat Jaunt Dec. 4

Delta Divers from Convair SD are hoping to load up with lobsters on a boat trip Sunday (Dec. 4), Harry Ruscigno, club president, reports.

Complete details concerning the excursion and reservations can be obtained by contacting Al Jones, ext. 2909, Plant 1.

Club members are reminded that the Delta Divers Christmas party will be held at the home of Don Brimm. Those planning to attend should place reservations, not later than Dec. 5, with Cynthia Casebolt, AC-2-6646.

All interested are invited to attend the weekly dives conducted each Saturday. The group meets at 9 a.m. at the Diving Locker in Pacific Beach.

Leatherneck Bowl Tickets Available

Third Annual Leatherneck Bowl football game will be played Sunday (Dec. 11) in Balboa Stadium pitting the San Diego Marines against the Quantico Marines. Kickoff is 1:30 p.m.

Employee services at Convair SD and Astro are selling $2 reserved seat and $1.25 general admission tickets for the service tussle.

Half of the proceeds will be donated by the Marine Corps to the San Diego County United Fund, the remaining 50 per cent is slated for the Navy Relief Fund.

NASA Orders Space Study Program Leading to Moon Reconnaissance

Convair Astronautics has been selected to lead a six months study program for project Apollo, proposed new space aircraft, and Convair Fort Worth is negotiating for a role in the task.

The Apollo spacecraft eventually will be used for orbital missions around the earth and for manned reconnaissance flights in the vicinity of the moon.

Convair is one of three contractors designated by National Aeronautics and Space Administration. Also involved is AVCO Corp.'s Research and Advanced Development Division of Wilmington, Mass.

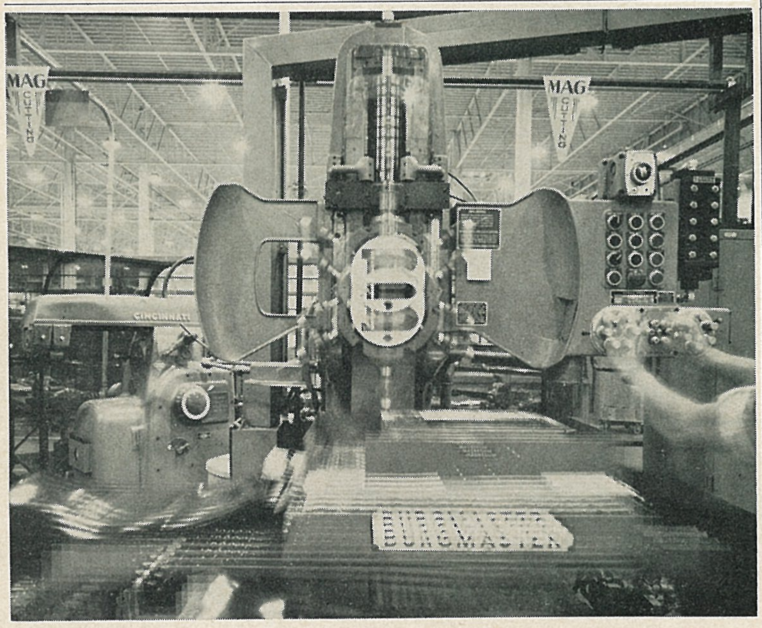
"Convair will lead the study team and act as the overall study integrator," J. R. Dempsey, Convair vice president and Astronautics manager, reported.

He said Convair will evolve the preliminary design for the vehicle, develop program requirements to build and test the craft, and determine and analyze overall costs. Assisted by other operating divisions of Convair, Astronautics also will work on problems related to the crew and associated subsystems, propulsion and total mission requirements.

Convair FW engineers point out that engineers and scientists have built up a significant background of knowledge in shielding humans and aircraft components from radiation emitted by nuclear reactors—some of which is similar to that found in space.

Convair FW, which now operates two nuclear reactors for continuing studies in this field, was the first aircraft facility in the nation to put a nuclear reactor into air. This was done in a converted B-36 bomber.

"The Apollo project is a necessary next step in NASA's manned-space flight program," Dempsey said. "It will receive top priority at Convair."



BY THE NUMBERS—Turret drill carries out coded instructions in this numerical control operation at Astronautics. Photographer Tom Mahnken's one-minute time exposure catches action dramatically. Ghostly hands belong to Operator Bob West who was making turret selection by manual control.

Numerically Controlled Drills at Work on Atlas

Two new Burgmaster numerically controlled turret drills recently activated in Astronautics' production machine shop (Dept. 731) now produce Atlas missile parts "by the numbers."

Each machine is equipped with a Hughes numerical positioning control system which moves the drill work table forward or backward, or from side to side; automatically positions one of six drill spindles on the turret, and cuts coolant flow on or off.

The operator needs only to mount the raw casting on the work table, select spindle speeds (from 75 to 1,000 rpm on one machine and from 150 to 2,000 rpm on the other), and set feed rate and drilling depth manually while setting up the device.

The controllers are of modular construction (whole units are simply unplugged and replaced should a failure occur), and use solid state electronics (no vacuum tubes).

Drilling jobs to be handled by the machines are first "programmed" by Astro's tool and operation planning (Dept. 401). The task is analyzed and instructions for the machine are punched as a series of small holes in eight "information channels" on one-inch-wide plastic tape, using a Friden flexowriter.

In the controller, the tape moves through a photoelectric "reader" which reads the binary coded decimal "language" and converts it into commands to the machine.

The 15 to 26-inch work table is automatically positioned to an accuracy of .001-inch and can repeat any position to within .0002-inch tolerances. This results in much greater accuracy than can be consistently obtained with manual operation.

"Use of numerically controlled devices gives us good accuracy while appreciably reducing the time required for each operation," says W. T. Herchold, general foreman. "One job which took seven to eight hours on a jig borer is now handled by numerical control in 36 minutes."

Other advantages include improved machine shop capability to produce urgently-needed parts through lower tooling costs, and reduced lead times.

Training Film Briefing Pilots On Instruments

A training film compiled by Convair SD motion picture section is going to F-106-equipped squadrons to brief pilots in the intricacies of the new AF-developed vertical instrument display.

Convair and the Air Force shared the problem of getting the new procedure, now being retrofitted into F-106s, to all pilots as soon as possible. Since only one link-type training unit was equipped with the new instrument display, the orientation film was produced to enable the entire training procedure to be packaged for use whenever and wherever needed, explained R. M. Hall, SD motion picture section assistant supervisor.

Assignments of the production crew were to compile air-to-air documentation of the F-106 in airborne configuration and cockpit orientation and flight simulation. Sequences for cockpit orientation were shot over a two-week period at Castle AFB, Calif., where the only F-106 vertical instrument display trainer was located.

Over 200 separate instrument readings and functions had to be recorded on film and all movements of both instructor and the instruments had to be 100 per cent accurate. Scene by scene, the 20-minute motion picture was checked for technical accuracy by Convair and AF personnel.

Chet Cunningham, SD script writer, prepared the film's shooting script in close coordination with the USAF technical adviser, Maj. Lew Armstrong of WADD Flight Control Instrument Laboratory. The motion picture was directed, photographed, and edited by Fred J. Miller.

Other members of the crew were J. A. Ayling and Ron Church, assistant cameraman; and R. C. Reynolds, sound.

Richardson Slated For SAE Address

Executives from Convair Pomona and General Dynamics Corporation will be featured speakers at the Dec. 8 meeting of Texas Section, Society of Automobile Engineers, at Ridglea Country Club.

They are Lawrence N. Richardson, senior vice president-engineering, General Dynamics Corporation, and E. D. Heller, supervisor of value engineering at Pomona.

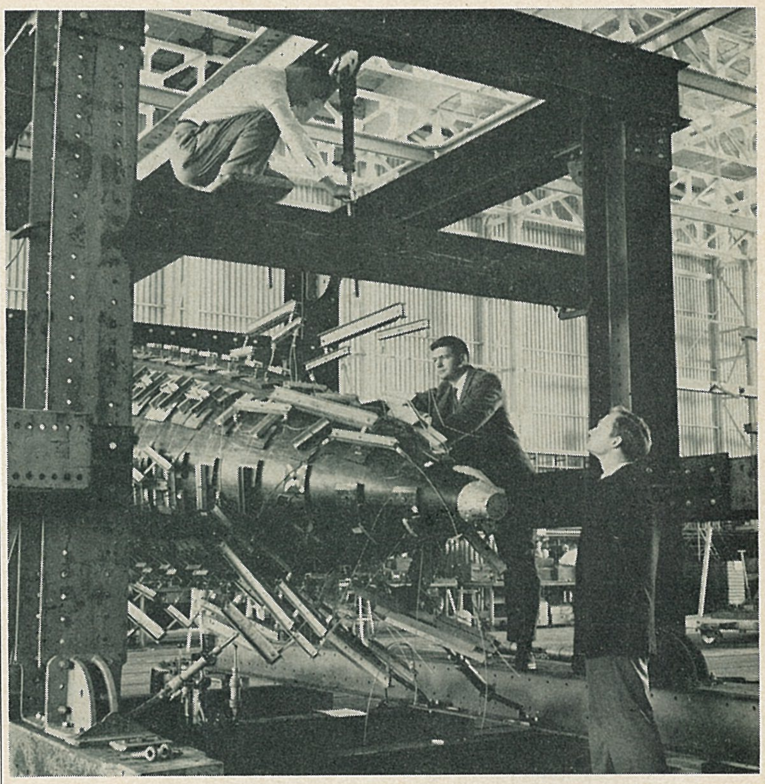
Social hour starts at 6:30 p.m., dinner at 7:30 p.m.

What a Long Nose You Have, Grandma!

Overheard at Convair FW's Open House:

Little Sister: "Why do they put that long thing on the nose of the B-58?"

Big Sister: "That's to stab birds with."



SET FOR SQUEEZE—New-type radome designed at Convair SD for B-58 is hooked up at SD structures test lab for pressure testing. At top, Tom Krattley, structures test engineer, checks ram, while Cal Meierbachtol of SD electronics radome group looks over whiffle trees. Standing is Bill Ruhland, structures engineer.

Nose Radome For B-58 Survives Enormous Loads in Test at SD

Largest aircraft nose radome of its kind, designed by Convair SD electronic engineers for the Convair-built B-58, is undergoing final checks at the SD plant this month.

The fiber glass laminate radome, 14 feet in length, will be a key component in the APQ-77 radar system designed and produced by SD electronics under an AF research and development program for the Convair FW supersonic bomber. Actual production of the radomes was subcontracted to Zenith Plastics, Inc., Gardena, Calif.

Two of the huge black nose cones are in the SD plant—one for stress analysis checkouts and fatigue tests concluded early this month at the structures test lab at the SD seaplane ramp. The other, first production article, is now swinging in a converted fixture, extended to hold the oversized radome and its 8-ft. nose boom, at the SD boresight range atop Bldg. 54A during electrical checkouts. The transmitting tower has been moved back to the north side of experimental yard to provide the required range distance, 5,000 inches.

During the next couple of months it will be tested with the APQ-77 system antenna to check antenna patterns, beam deflections, and one-way power transmission, explained Cal Meierbachtol of SD electronics radome group, lead engineer under D. A. Bell, radome project engineer.

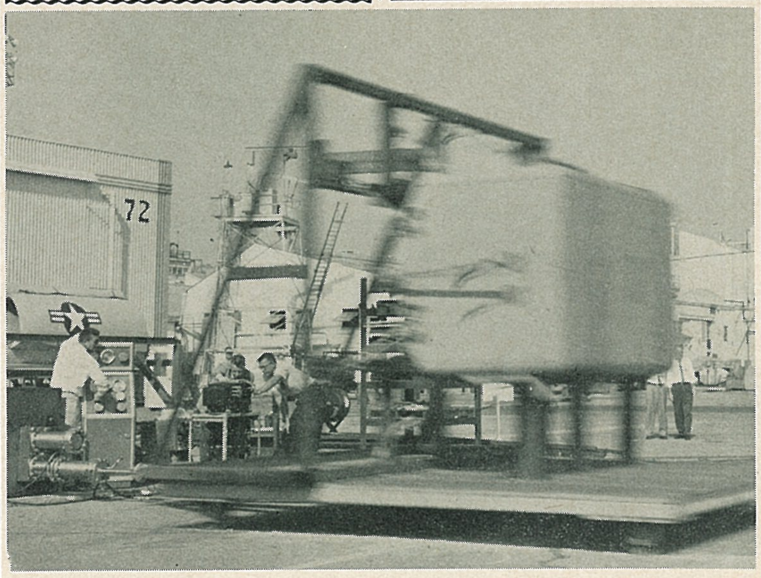
Results of the stress analysis test program showed that the radome's thin wall structure, only a fifth of an inch thick, could take double the loads it is designed for. During one test, ram pressure up to 1,500 lbs. per square inch was applied to the specimen through the whiffle trees connected to 320 pads placed around the radome's exterior.

"Holes were drilled through the radome with wires passed through to connect to whiffle trees on each side," explained Meierbachtol. "In this way a tremendous compression load, nearly three times the design load, was exerted."

Before going into the pressure tests, the radome baked at 220 degrees F. for ten hours, then had different amounts of load applied—from 20 per cent to 200 per cent—for two or three hours. It was overloaded three times up to half again as much load as it is designed to take before a failure could be induced.

"We found that it will take much more pressure than it will ever conceivably have to endure on an aircraft, even at Mach 2 speeds," stressed Meierbachtol.

The entire radar system, designed as an improved bombardier-navigation system for the B-58, is due for checkouts at the SD plant some time next month. Under direction of D. A. Graybill, SD electronic project engineer, the program is slated for January completion.



POW-EE!—Dean Bowles, Tom Curtis, Darrell Brown, all Convair SD systems dynamics test engineers (at left) watch controls as fuel systems test cart (in frame) takes beating from Dynapak shock actuator.

Fuel System Test Cart For F-106 Given Severe Case of 'The Shakes'

A Convair-designed and Convair-built F-106 fuel system test cart wound up its rigorous test program this month by proving itself sturdy enough to take the most severe shocks it will ever get when airborne.

In the acceleration flight load tests, set up and monitored in Convair SD experimental yard by test engineers from systems dynamics lab, the cart went through a series of tests to see how well it could withstand sudden shocks in flight or impacts during landing and taxiing. (The field carts, being built at Convair SD for F-106 squadrons, will be transported from base to base by air carrier.)

"We found that the 5,500-lb. cart could take impacts up to 3Gs (three times its own weight) without damage," said Dean Bowles, project engineer from components group of systems dynamics lab.

Bolted to a 14x14-ft. mobile pallet, or platform, the cart was hit with tremendous force in three different positions—longitudinal, lateral, and vertical. A Convair-developed Dynapak Hyge shock actuator generated the impacts. The shock machine, used in impact tests at Convair SD during the last three years, is capable of delivering "sudden" shocks of 40,000 lbs. in from .005 of a second to a tenth of a second. Maximum force taken by the cart test specimen was for duration of a tenth of a second.

Test lab mechanics from Dept. 31, under Milton Bodger, assisted with flight load test set-ups.

Other tests conducted on the cart during the last several months by components group, supervised by H. B. Bard, included mobility checkouts at Brown's Field. Environmental tests were the responsibility of the utilities group under C. J. Rother with R. G. Wingfield coordinating the program, (Convairiety, Oct. 26). M. C. Brady is chief over all systems dynamics lab operations.

CARR TO COMMAND RESERVE SQUADRON

Robert A. Carr, Astro industrial relations at Plant 2, has been appointed commander of the 42nd Casualty Staging Squadron (Medical) at the 2639th Air Reserve Center, Fort Rosecrans.

Priority System Adopted to Speed CIP and ES Processing

Convair San Diego is "pulling out all the stops" in an expanded effort to substantially slash the time formerly required to analyze and process cost reduction ideas (Employee Suggestions and Cost Improvement Proposals).

In the main, three innovations are expected to speed processing. **They are: the establishment of a priority schedule to expedite ideas indicating substantial savings; re-emphasis of personal contact between cost reduction analysts and CIP and ES submitters; and formation of a top management Idea Review Board.**

D. L. Johnson, manager of systems and procedures, said: "A recent random sampling shows that the average processing time for an approved ES and CIP was in the neighborhood of eight weeks, or 40 'M' days. We intend to cut this figure drastically.

"Delays can cost thousands of dollars," he added. "And they tend to discourage participation in the all-important CIP and ES programs at a time when the division urgently needs every cost-cutting idea."

Briefly, in order to improve the situation, every idea entering the network is getting the rush treatment — particularly those that indicate substantial savings, said Johnson.

As ESs and CIPs are submitted each is given one of the following priorities and speeded up accordingly.

Priority One: an idea with a potential savings of $10,000 and over, that can be realized immediately and processed to completion within 30 days.

Priority Two: an idea with a potential savings of $10,000 and over, that can be realized within one year and processed to completion within 30 to 60 days.

Priority Three: an idea with a

(Continued on Page 2)

CIPs ESs → Priority → Inquiry → Review → Payoff $$

C-V CONVAIR

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SAN DIEGO, POMONA, ANTELOPE VALLEY, CALIF. — ASTRONAUTICS OFF-SITE BASES, FORT WORTH, TEX.



READIED—Convair 880 jetliner, sporting fresh paint job in Northeast Airline markings, stands in field operations pit on Convair SD flight line as it was prepared for recent first flight and delivery last week.

Speedy CIP, ES Action By Supervision Urged

Although a speedier processing system for ESs and CIPs has been established within cost reduction section at Convair SD, success of the expedited program will depend a great deal upon every member of supervision.

To help reduce the time span when processing ESs and CIPs the following rules must be observed when answering inquiries.

1. Answer the inquiry TODAY, not tomorrow.

2. Don't stockpile the inquiries in your desk, keep them moving.

3. Don't "pass the buck" to another person or another department.

4. Jot down all the pertinent information you possess concerning the ES or CIP in question.

To further reduce the time span at this end of the operation, separate inquiry sheets are being provided for each comment. No references to previous comments will be included. This routine is being established in order to achieve unbiased analysis, and present clear-cut issues for quick decisions.



ALL SET—In cockpit of Northeast Airlines' first Convair 880, flown last week to Boston, Mass., headquarters, are Capt. Eugene Rooney of Northeast; W. D. Carrier, SD production flight captain, in pilots' seats; and George Brown, Northeast flight engineer, who with Jack Rogers, SD flight engineer, made up crew on cross-country hop.

Bloodmobile Visit Set For Tomorrow For Plant 1 Donors

Engineering and experimental personnel on first shift at Convair SD Plant 1 will be donors at the bloodmobile tomorrow (Dec. 8).

The bloodmobile will be located in Bldg. 32, Plant 1, between 10 a.m. and 2 p.m. Anyone, not already contacted, who wishes to volunteer blood to Convair SD's credit at the San Diego Blood Bank is urged to contact Ken Wulfemeyer at SD employee services, Plant 1.

Since this is the first bloodmobile scheduled in three months, a large turnout is anticipated to build up Convair SD's blood supply. According to Wulfemeyer, he hopes that 150 pints will be donated to tide Convair employees and their families through the holiday season when demand for blood is always greater.

There will be no bloodmobile visit scheduled in January.

Frank Pace to Talk For Pomona Club

Frank Pace Jr., board chairman of General Dynamics Corporation, was in Southern California this week.

On his agenda was a talk before the Management Club of Convair Pomona at a special meeting tomorrow night (Dec. 8).

Reservations Opened by CRA For Two-Week Trip to Europe

Another two-week trip to Europe, scheduled to leave Los Angeles for Copenhagen April 8, 1961, will be sponsored by Convair San Diego Recreation Association. It will be open to both Convair SD and Astro people.

Prorated, round-trip flight cost between Los Angeles and Copenhagen will be $370. Carrier will be a scheduled Scandanavian Airline System DC-8C over the jet polar route. Return will be April 22 from Copenhagen.

Also offered is a "European Holiday" tour which will visit London, Paris, Lucerne, Luxembourg, Brussels, Amsterdam. Package price for tour and flight is $685.

The tour is fully-conducted, and a representative of Lanseair Travel Service, Inc., will accompany each group of 30 persons throughout Europe.

Flight price alone is based on a 100 per cent utilization of a 132-seat plane; tour and flight cost is based on a minimum of 30 participants.

Those planning to make the trip must be eligible for at least two weeks vacation and have their supervisor's approval to take the vacation during the specified dates.

Complete information concerning tour and flight can be obtained by contacting Convair SD employee services, Plant 1, ext. 1245.

Fifty-dollar deposits will be accepted through Jan. 16 with the balance due by Feb. 15.

Convair SD's last CRA-sponsored trip to Europe was an overwhelming success according to travelers who especially praised the excellent SAS service.

Xmas Tree Sale To Start Dec. 15

Christmas trees will go on sale next week for Convair SD and Astro employees.

Douglas firs and silver-tipped firs will be offered at below retail prices after Dec. 15 in front of the CRA Clubhouse on Pacific Highway across from SD Plant 1. They will be on sale from 10 a.m. to 10 p.m. daily until Dec. 22.

Two Jet 880s Fly Away For Northeast Service

First two of the six jet 880 transports going to Northeast Airlines were delivered within the last week by Convair SD after an all-out effort by SD field operations.

Crews worked day and night and through the Thanksgiving holiday to ready the planes for first flights and deliveries in record time.

Within a week after announcement of Northeast's procurement of Convair jet transports, the airline's first 880 was flown to Boston, Mass., Nov. 30 with the second leaving San Diego last Sunday, Dec. 4.

"We are proud of the cooperation of all our crews on the flight line in getting the planes updated, checked out, and airborne in the least possible time," said Conrad Kunze, SD assistant manager-operations. "We are on schedule thus far, and continued teamwork of this high quality will keep us on schedule."

First flights and deliveries followed close on the heels of an announcement two weeks ago of a lease agreement between Gen-

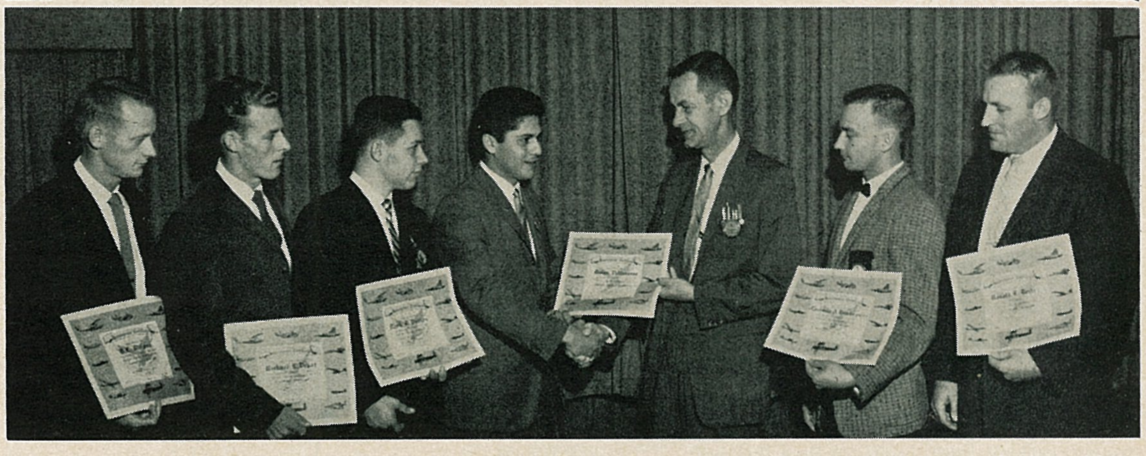
(Continued on Page 3)

LIGHTS ON XMAS TREES BANNED

Yuletide trees going up through Convair San Diego may sparkle, but not with Christmas lights, warned M. C. Val Dez, chief of SD injury control section.

To avoid fire risk, no electric lights may be installed on any departmental Christmas trees. Only lighted trees will be the official company trees to be located outside Bldg. 19, Plant 1; near the cafeteria at Plant 2; and in the lobbies of Bldg. 19 and Rose Canyon. These approved lights will be installed by electrical maintenance personnel.

"Short circuits and improper wiring connections have been the cause of several fires in the past," said Val Dez. "We all wish to avoid the danger of such blazes."



MORE JOURNEYMEN—Six new journeymen recently received certificates from E. W. Carlson (third from right), chief of SD electronics manufacturing, after completing four-year apprentice training. From left are Richard L. Wilson, instrumentation technician, now with Astronautics at Sycamore test site; Richard L. Vopat, engineering writer in Dept. 15; Mark B. Patton, lathe operator (Dept. 215); Ruben Villanueva, Dept. 44 material release analyst; Carlson; Lawrence A. Broekemeier, tool designer assigned to Dept. 7; Ronald E. Beitz, Dept. 7 electronic technician.

Log Book Entries

Service Emblems

SAN DIEGO

Service emblems due during the period Dec. 1 through Dec. 15.

Twenty-five-year: Dept. 14, F. E. Meer; Dept. 15-4, H. I. Morgan; Dept. 25-1, E. R. Fink; Dept. 197-7, K. M. MacLeod; Dept. 401-0, L. G. McGiffin.

Twenty-year: Dept. 3-1, J. J. Baxter; Dept. 6, R. B. Allen, B. J. Campbell, H. W. Millard, W. T. Myers Jr., L. E. Ottem; Dept. 7, C. W. McKerlie; Dept. 25, A. A. Burkhart; Dept. 31, Joe Berardini, W. B. Gregovich, W. A. Norstrom, L. P. Petersen, P. A. Warren.

Dept. 100, P. G. Osborn; Dept. 115, F. I. Garrison, Ladislao Maciel; Dept. 123, R. C. Beezley; Dept. 136, L. J. Baldwin, H. G. Blomke; Dept. 180, L. D. Rush; Dept. 188-1, L. G. Lawson; Dept. 192, H. L. Dixon; Dept. 218, R. A. Davis; Dept. 266, W. C. Griffin; Dept. 288, G. D. Kline Jr.; Dept. 401, W. H. Glenn, C. E. Heller.

Fifteen-year: Dept. 25, D. H. Miller; Dept. 31, C. M. Barnard; Dept. 116, Gladys E. Millsap; Dept. 137, H. D. Cottrell, Celestino Villalpando; Dept. 140, A. T. Higginbotham; Dept. 146, J. D. Watson; Dept. 192, Alice C. Root (due 11-24-60); Dept. 288, R. W. Allen; Dept. 401, J. A. Montgomery, A. S. Romero.

Ten-year: Dept. 3-1, P. R. Conkle; Dept. 6, Heinz Gerlich, J. J. Herring, H. T. Kozak, R. A. Lange, D. P. Miller, W. H. Whitley; Dept. 7, R. E. Kenyon, B. J. Vozely; Dept. 14, Katherine G. Duffy, W. J. Hamilton, Ina B. Ray, L. D. Stevenson.

Dept. 21, H. B. Caulk; Dept. 25, C. P. Brown, C. F. Gourley, F. W. Greel Jr., M. R. Snow, K. A. Tucker, Francis Warner, C. D. Wilson; Dept. 31, F. H. Cederberg; Dept. 34, L. W. Klingenmeier Jr., B. R. McClendon.

Dept. 44-4, Helen J. Barnes; Dept. 97-7, Viola B. Whitaker; Dept. 98-7, Martha S. Lunsden; Dept. 101, Rudolph Sotelo; Dept. 115, H. B. Adamson, J. W. Garrett; Dept. 116, Carlos Caballero; Dept. 120, Constance M. Hardwick; Dept. 129, Alejandro Duplat, Ruben Graciano, B. L. Maxwell; Dept. 133, R. G. Ferguson, Philip Martinez Jr.; Dept. 137, R. F. Renteria.

Dept. 138, Helen K. Allen; Dept. 145, J. E. Lozano, J. A. Sandoval; Dept. 146, J. R. Contreras, Robert Graciano, J. W. Switi; Dept. 148, M. L. Chitry; Dept. 160, S. A. Cruz, J. M. Gomez; Dept. 170, R. J. Moore; Dept. 171, E. O. Babb; Dept. 180, M. G. Fain, Michael Sudin.

Dept. 192, V. C. Carr, Rose A. Crabb, L. G. Cragg, Velma H. Dressler, F. H. Harding, R. K. Johnson, Ted Lundquist, R. A. McCracken, W. A. Schearing Sr., A. N. Traxler; Dept. 201, Wesley Cooper, A. G. Whernik; Dept. 206, L. B. Gerhardt; Dept. 215, Gloria L. Beemer, T. A. Sandoval; Dept. 218, Anna K. Cavan, Minnie S. Gaskins; Dept. 223, Elva S. Umberhocker, Gertrude W. Wilson.

Dept. 233, Andres Cornejo; Dept. 267, F. G. Lucero, L. P. Mireles; Dept. 288, M. J. Clouse, Janet C. Glovanik, H. B. Southern; Dept. 292, L. C. Clemmer; Dept. 400, C. D. Costantino, Peter Rodriguez; Dept. 401, C. A. Dykstra, F. J. Goodrich, G. G. Guthrie, G. M. Peace, Lola B. Stacy, W. E. Woodward.

PALMDALE

Twenty-year: Dept. 321-1, W. A. Reusch.

Ten-year: Dept. 321-1, R. A. Grove, O. L. Willoughby; Dept. 322-0, P. J. LaFrenier; Dept. 325-1, C. C. Starling.

HOLLOMAN AFB

Ten-year: Dept. 313-2, J. D. Darsey Jr.

Promotions

SAN DIEGO

Promotions to or within supervision effective Nov. 21.

Dept. 129, Plastics & Trim: To foreman, D. E. Palumbo.

Dept. 190-6, Applied Manufacturing Research & Process Development: To accounting supervisor, A. L. Baber.

Personals

SAN DIEGO

I wish to express heartfelt thanks to my friends in Depts. 102, 109 and 129 for their kindnesses following the loss of my mother.

Eva S. Morland, Dept. 129.

* * *

Our grateful appreciation to Convair friends at both Astro and San Diego Divisions for the donations of blood for heart surgery for our son, Steven.

Helen Yturralde, Astro Dept. 830.
Edmond Yturralde, SD Dept. 279.

* * *

I wish to express my heartfelt gratitude to the employees of Convair for the kindness and sympathy extended to me in my deep sorrow at the loss of my husband, Onnal Otey.

Mrs. Ileyne Otey.

* * *

To Convair friends at Astro and San Diego, we send sincere thanks for the many personal calls, flowers, and messages of good will received at the hospital as well as at our home.

Mr. and Mrs. H. Dale Cromartie.

* * *

The family of Daniel F. Kelly joins me in thanking Convair friends for their many expressions of kindness at the death of my husband.

Jessie Kelly, Dept. 6.

* * *

I wish to express sincere appreciation and thanks to all my Convair friends for their kind expressions of sympathy at the death of my brother, Robert M. McMurry.

R. T. (Mac) McMurry, Dept. 25.

SD Service Parts Move Accomplished To Mezz. in Bldg. 4

Now located in new quarters in Convair San Diego Plant 1 are all SD service parts personnel.

The move of 230 people and equipment from the two former Fordham St. buildings was accomplished on schedule over the weekend of Nov. 25. They reported to their new area on the south mezzanine of Bldg. 4 the following Monday morning.

Astro customer training people will be moving out of Plant 2 to the 3250 Fordham St. building this weekend.

New extension for John Doig, SD service parts chief, is ext. 2753; G. R. Sibley, general supervisor of military service parts, ext. 2738; and H. E. Wolfe, general supervisor of military service parts, ext. 2756, all Plant 1.

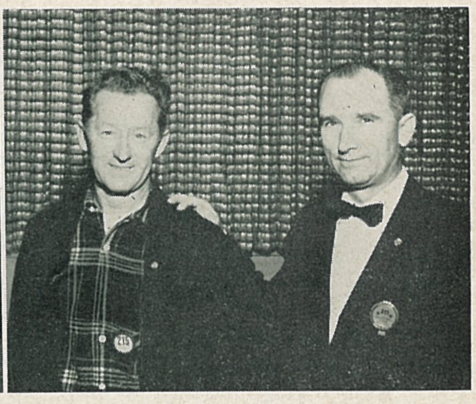




THREE SCORE AND FIVE—Seated is A. E. Brennan, Dept. 232, receiving diamond ring from R. C. Loomis, SD manager, on occasion of 35th anniversary. Standing are, from left, Paul Osborn, E. D. Robinson, Conrad Kunze. At far right, A. W. Koster, Dept. 15-4, displays watch he received from Loomis as he celebrated 30th Convair year.







CLUB GROWS—Convair's Quarter Century club added eight new members last month when they received 25-year service emblems. In left photo, R. H. Harshaw, Dept. 401-0, is congratulated by F. L. Chamberlin, general foreman. Center, left to right, G. O. Couchman, Dept. 232; T. A. Anderson, 192-0; G. L. Peyton, 6-21; Loomis; W. V. Tisdale, 401; J. W. Wiley, 15-5; J. C. Hoover, 6-03. At right M. J. Willows, Dept. 215, R. L. Williams, foreman.

JA Adviser Named San Diego Director

W. H. Marshall (Convair SD Dept. 25) last month was elected to the board of directors of Junior Achievement of San Diego, Inc.

Last year the same organization named him "Director of the Year" for his outstanding work with Convair SD Management Club-sponsored JA companies. Presently he is board of control member in charge of the JA program for the Convair club.

Junior Achievement of San Diego, Inc., is a chapter of the national organization and oversees the activities of 32 JA clubs in the San Diego, La Mesa and El Cajon areas.

Retirements

SAN DIEGO

HALE—James M., Dept. 25-2. Seniority date Aug. 20, 1953, retirement effective Nov. 11, 1960.

LONG — Horace W., Dept. 25-1. Seniority date Sept. 20, 1951, retirement effective Nov. 25, 1960.

PRESTON—Albert, Dept. 603-7. Seniority date Sept. 23, 1947, retirement effective Nov. 14, 1960.

SOPKO—Joseph J., Dept. 25. Seniority date April 24, 1951, retirement effective Nov. 14, 1960.

Lost & Found

SAN DIEGO

LOST—Ladies' ring, opal surrounded by chip diamonds, second shift, Dept. 101. Sentimental value. Finder please return to Stella Hahling, Dept. 116, ext. 777, Plant 1. Evenings, CY-8-1488.

Births

SAN DIEGO

EMKJER—Son, Brian Dalvin, 6 lbs., 12 oz., born Nov. 25 to Mr. and Mrs. E. J. Emkjer, Dept. 1-97 (Convair Instruments).

MEACOCK — Daughter, Margaret Edith, 7 lbs., 8 oz., born Nov. 28 to Mr. and Mrs. Douglas Meacock, Dept. 1-97 (Convair Instruments).

ZEICH—Son, John Russel, 8 lbs., 15 oz., born Nov. 9 to Mr. and Mrs. Richard Zeich, Dept. 6.

Deaths

SAN DIEGO

SMALLING—Thomas V., Dept. 14-4. Died Nov. 23. Survived by daughter, Geneva C. Beckett; four sisters and one brother.



R. W. Warden Jr.



R. M. MacIver

MacIver and Warden Accept New Posts

R. M. MacIver has been named manager of the Colorado Springs office of Convair. He succeeds R. W. Warden Jr., who has been appointed an assistant to the director of military relations in General Office. Both appointments were effective Dec. 1.

MacIver has been with Convair since May, 1953. He was associated with the F-102 and F-106 programs in his former post with Convair military requirements.

Warden, who joined Convair in 1954, was formerly chief pilot at Convair Palmdale before going to the Colorado Springs office.

Stromberg-Carlson Stereophonic Models On Display at SD

New 1961 Stromberg-Carlson stereophonic models are on display at Convair SD employee services, Plant 1, for convenience of Convair people who wish to take advantage of the special purchase plan.

Through a Convair and Stromberg-Carlson arrangement, Convair employees may purchase stereophonic phonographs or combination radio-phonographs at substantially reduced prices. Price lists are available at SD employee services.

Prospective purchasers may select the model of their choice from a brochure at SD employee services or on the floor of one of the six approved dealers.

Approved outlets are Scotty TV Stores at 3050 University; 8118 La Mesa Blvd., La Mesa; and Cass and Garnet Sts., Pacific Beach; High Fidelity House, 1635 University; Borgen's Music Co., Seventh and Broadway; and Hamilton Appliance and Radio Co., 7865 Girard, La Jolla.

New Priority System Expected to Speed Processing of CIPs and ESs at SD

(Continued from Page 1)

potential savings of less than $10,000.

After the ES or CIP has been tagged with a priority it is rushed through the processing network which now includes "fast action" refinements.

No. 1 and No. 2 priority ideas are being walked through the system and analysts are making personal contact with each submitter.

In addition a five-man review board is expediting incorporation of No. 1 and No. 2 priority proposals.

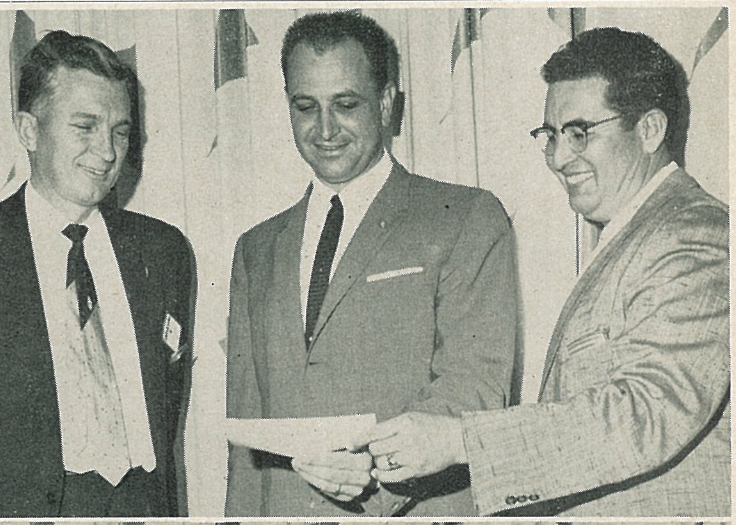
Top management members of this board are G. A. Covington, manager of quality control; W. W. Fox, chief engineer; Conrad Kunze, assistant SD manager—operations; T. J. Sullivan, assistant SD manager—contracts, customer service and material; and Johnson.

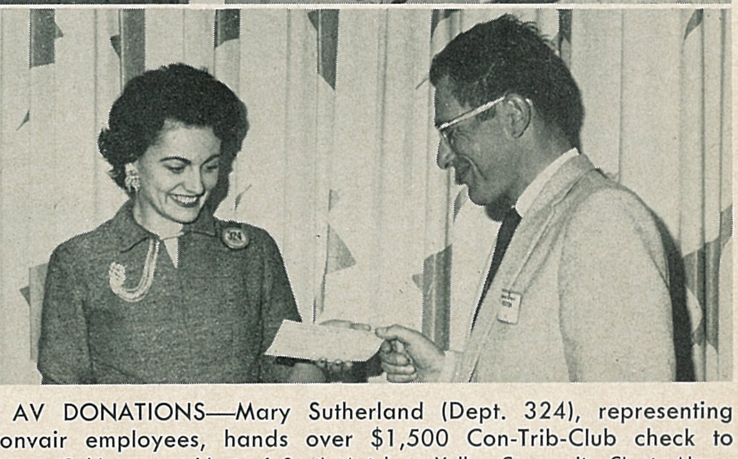
During the past five weeks, their CIP and ES output has greatly exceeded the input, thereby reducing the number of submittals in process. Thus they will be able to give new ideas immediate attention, said Johnson.

All SD Supervision Welcome at Dance

All members and eligible nonmembers of Convair SD Management Club are invited to attend the annual Christmas Dance this Friday (Dec. 9) in the U.S. Grant Hotel.

Tickets for the informal affair are priced at $2 per couple and are available from meeting ticket salesmen. The orchestra of Francis Leonard will play in the Palm Room and the Wally Ford combo will hold forth in the Crystal Room.





AV DONATIONS—Mary Sutherland (Dept. 324), representing Convair employees, hands over $1,500 Con-Trib-Club check to George Goldman, president of South Antelope Valley Community Chest. Above, William Lopez (left) of MSTS, and T. L. Maloy (right), base manager of Astronautics Missile Static Test Site, present $2,500 check to Dr. Charles McQuarrie, vice president of North Antelope Valley Community Chest. Donations were in addition to annual Con-Trib pledge to AV Community Chests.

★ Convairiety ★

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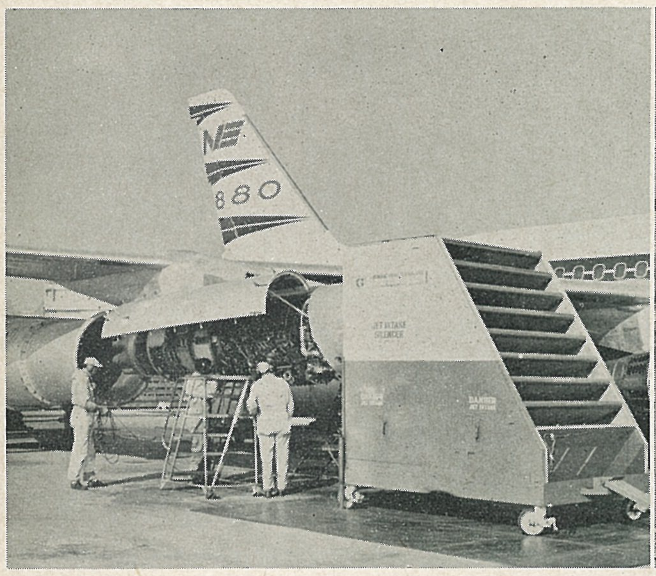
SD Editorial Offices, Building 32, Plant 1, ext. 1071. Staff: Grayce Fath, Helen Pemberton, Fred Bettinger.

Astronautics Editorial Offices, Bldg. 8, Astro site, ext. 3322. Staff: Bryan Weickersheimmer, news editor; Willard Harwood.

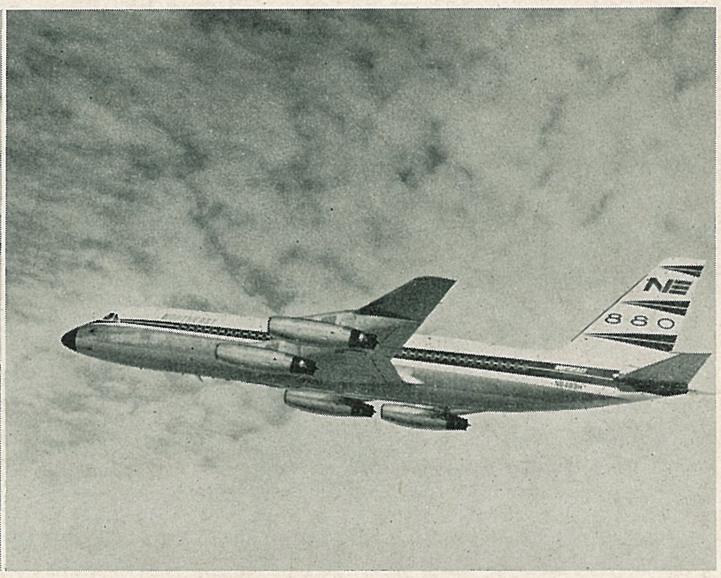
FW Editorial Offices, Col. 73C, ext. 2961. Mailing address: Convairiety, Convair, Fort Worth, Texas. Telephone PErshing 8-7311. Staff: Dave Lewis, news editor; Louise Sutton, Mary Beck.

Pomona Editorial Offices, Room 106-D, Bldg. 1, ext. 6226/5279, mail zone 3-3. Staff: James Combs Jr., news editor; Dorothy Keller.

Palmdale news representative, CRA office, Room 36, Bldg. 301B, ext. 331, Palmdale facility. Holloman: O. J. Ancel, industrial relations, ext. 20, Holloman AFB.







NORTHEAST'S FIRST—No. 1 Convair 880 jet transport going to Northeast Airlines was readied in all-out push in Convair SD field operations for last week delivery date. At left, field operations mechanics check out GE engines. Center shot shows Arthur DeBaca polishing armrests and Norman Bezio checking installation of oxygen masks. At right, first Northeast 880 soars aloft on maiden flight Nov. 26. Flight to Boston was made in 4 hrs., 17 min.

'Caged' Models Expedite Antenna Development

A refined facility to speed design of antennas going onto airborne vehicles of the future is under development in Convair SD electronics' antenna laboratory.

Models (1/40th scale size) will be "put behind bars" in the electrodynamic cage in the lab's working area on the roof of Bldg. 51 at Plant 1 to find exactly where antennas must be located for highest effectiveness.

The cage, an 8-ft. cube, is a modification of a similar facility used during design of low frequency antennas on Convair 880 and 990 jet transports. The lab's nine other outside pattern ranges are used during development of antennas with higher frequencies.

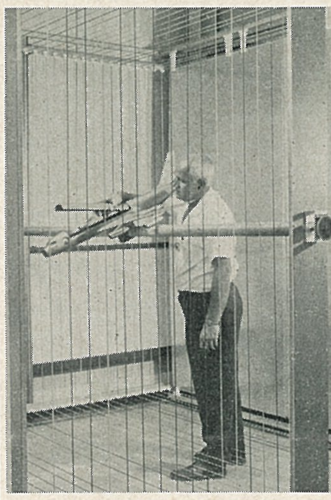
The measurement facility consists of electrically-insulated parallel metallic plates, charged, during tests, with alternating voltage of 100 volts, at 100,000 cycles per second. The other two sides, and top and bottom, are strung with stretched wires at three-inch intervals with resistors installed between the wires to keep the electrical field uniform. Their specific purpose is to eliminate "fringing," or distortion between the two plates.

The model, whether plane, missile, or space vehicle, is attached to a non-conducting bar in the center of the cage. A test probe (simulating the antenna) is connected to a meter on the model. As the model is rotated on the bar, deflection of the meter is observed and radiation pattern plotted.

From information gathered, antenna lab research specialists locate the electrical center of the aircraft; measure curvature factor; and establish effective height of proposed antenna.

"Direction-finding sense antennas must be located exactly at the electrical center of aircraft," explained Milton Chazotte (Dept. 7-10), assistant group engineer in charge of transport antenna program. "This point varies with individual configuration of the vehicle.

"When the antenna is properly placed, the 'zone of confusion'



CAGED—C. J. LaBrie of Convair SD electronics antenna group adjusts model of Convair 990 in electrodynamic cage, new measurement facility under development in SD antenna lab.

over the 'target' location is reduced and the exact spot can be pinpointed at once with reversal of needles on the pilot's control panel."

The new facility will streamline research procedure, making gathering of information infinitely easier, quicker, and safer, said Chazotte, who reports to Kirk Abbey, antenna lab group engineer.

Although the previous method used at San Diego—involving a much smaller electrostatic cage—required more time, it nevertheless produced the new-concept ADF antennas familiar on the upperside of Convair's jetliners. Housed in fiber glass panels, they ride tandem on top of the fuselage and provide highly accurate over-station behavior. Specifications require a plus or minus 10-degree zone of confusion margin, but Convair's 880 direction finding antennas proved during FAA certification flights to be within one degree!

Patterson to Assist GD Board Chairman

W. H. Patterson, assistant to J. R. Dempsey, Astronautics manager, is now on a 90-day special assignment to Frank Pace Jr., General Dynamics Corporation board chairman. Patterson will end his special assignment Feb. 28, 1961.

1,000 Greet Jet 880 On Boston Arrival

Northeast Airlines' first Convair 880 was greeted by an enthusiastic crowd of over 1,000 spectators on hand to welcome the gleaming white ship last Wednesday as it swept down to land at Logan International Airport, Boston, Mass.

Cross-country flight from San Diego took 4 hrs., 17 min., just ten minutes longer than Pilot W. D. Carrier's estimated time. Turbulent air near Boston delayed descent a few minutes, he said, though entire flight was termed "good."

Average ground speed over the 2,730-mile route was chalked at 638 mph with top speed of 692 mph recorded between Farmington and Evansville, Ind. The Convair jet airliner cruised at around 33,000 feet as it winged coast to coast.

First of Six Jet 880s Delivered to Northeast For East Coast Service

(Continued from Page 1)

eral Dynamics Corporation and the airline. The 880 jetliners and necessary spare parts will be leased to Northeast Airlines for a seven-year period with options for renewal and purchase.

Early deliveries of the 880s were made possible by release of six delivery positions held by Hughes Tool Company.

Northeast's No. 1 plane went aloft on its maiden flight Saturday (Nov. 26) after an all-out effort by SD field operations crews, and soared off for the airline's Boston, Mass., headquarters early Wednesday (Nov. 30). At the controls was W. D. Carrier, Convair SD production flight captain, with Capt. Eugene Rooney, Northeast pilot, in the co-pilot's station. Flight engineers were Jack Rogers of Convair SD and George Brown of Northeast.

(Both Capt. Rooney and Brown, together with three other Northeast pilots and one other flight engineer, were at the San Diego plant last summer for SD production flight's ground school.)

Carrier and Rogers will remain at the Boston airline base for a month to train Northeast crews.

In charge of this week's delivery flight of the second 880 to go to Northeast was A. P. Wilson, Convair SD production flight captain, and L. J. Rice, SD flight engineer. Capt. Rooney expected to return to San Diego to accompany the second jet on its flight to Boston.

First Convair 880 will be put into service the middle of this month between Boston, Philadelphia, and Miami, according to James W. Austin, Northeast's president and general manager. As the other 880s are delivered they will all, with the exception of one reserved for flight training, go into commercial passenger service over the airline's network which serves the East Coast from Montreal to Southern Florida.

All of the first four 880s are scheduled to be in the hands of Northeast by Dec. 15 with the remaining two, now in final assembly at Convair SD, due for first flights and delivery in February.

Interior arrangement of Northeast 880s will accommodate 97 passengers. There will be 13 rows of five-abreast seats; five rows of four-abreast seats, two on each side of the center aisle. The forward-cabin lounge will seat 12 persons.

In another lease agreement, Northeast has contracted with General Electric Co. to provide turbojet engines for the six 880s. The Convair jets are powered by CJ-805-3 engines with reversers and sound suppressors.

880s Log Two Million Air Miles During Six Months With Delta

Convair 880 jetliners have flown nearly two million miles during their first six months in service with Delta Air Lines, first airline to take delivery on Convair jet transports.

Delta Air Lines, which now operates eight of the Convair 880s over its airline network in the East and Middlewest, took delivery of its first Convair jet last February. Convair 880s went into passenger service in May of this year.

Since then they have flown 1,901,178 revenue miles and carried 99,641 passengers, with an average load factor of 59.95 per cent.

Revenue ton miles flown were: mail, 338,061; express, 86,865; freight 331,300; and excess baggage, 110,830. The fleet utilized 46.92 per cent of available revenue tons.

Total revenue hours flown were 3,994.

Delta has four more Convair 880s yet to come from the Convair SD plant with one more scheduled for delivery within the near future.

Convair 880 jet service now is available between Atlanta and Chicago; Atlanta and New York; Atlanta and Dallas; Houston, New Orleans, Washington/Baltimore, and Philadelphia; and Houston, St. Louis, and Chicago.

Round-trip service is starting this month between Chicago and Miami and Cincinnati and Miami.

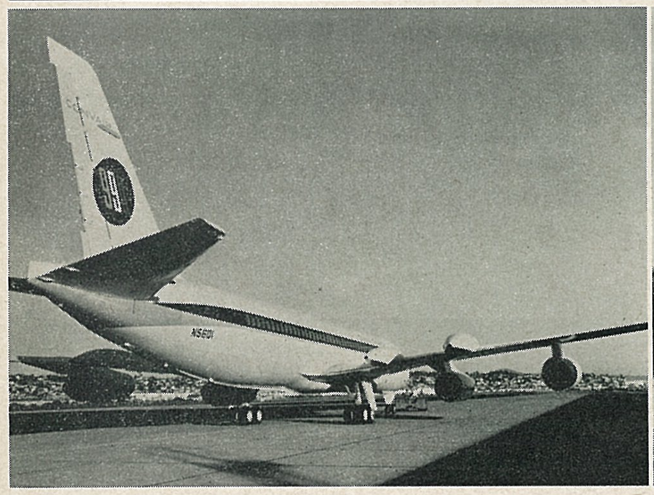
Renamed 990, Follow-on Jetliner Returns From Ramp Ground Test

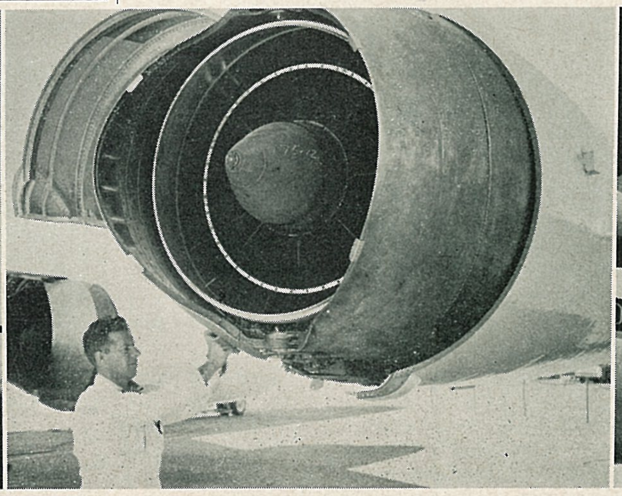
Convair's first 990, formerly known as the 600, is due back at the main Convair SD plant this week as it winds up ground testing at the SD seaplane ramp.

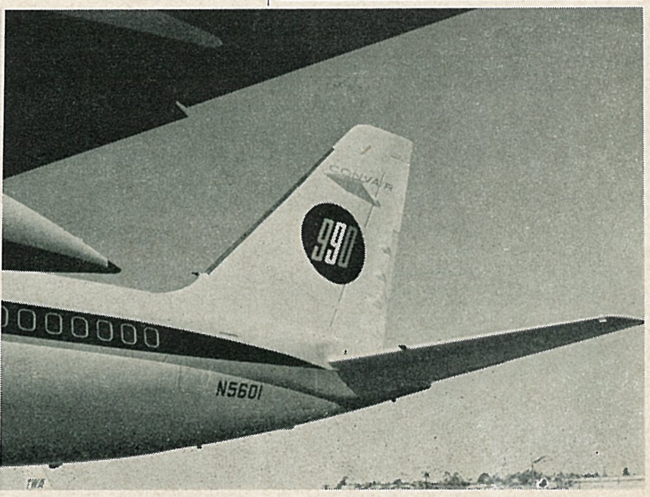
The 990 is the follow-on jetliner to Convair's 880.

Moved out of the factory the weekend of Nov. 20, plane No. 1 has been in the hands of SD systems dynamics lab test engineers the last two weeks and a half as it was put through vibration tests. It will go into a series of operational checkouts before going to field operations to be readied for first flight some time in January.

Jet 990s Nos. 2 and 4 are in final assembly at Plant 1, while ship No. 3 was due to go to the seaplane ramp this week for a several-month structural test program.







MARKED—Brilliant paint job on Convair's first 990 jet transport displays new emblem on tail distinguishing latest jetliner from sister series. Shot at left, caught during move from SD factory to seaplane ramp for vibration tests, clearly shows anti-shock bodies on wings, designed to cut down air drag for greater speed. Large pods house General Electric CJ-805-23X engines. In center, V. H. Larson of SD field operations makes adjustment on new-type GE thrust reverser.

Together Again

Convair Men Look Back 19 Years To Bombing in Philippines

Two Convair FW employees who defended the Philippines after Pearl Harbor are back "together" again, building B-58 Hustlers.

They're Jim Elder, engineering publications editor, and R. W. Geis, project design engineer.

On Dec. 7, 1941, 1st Lt. Elder was a B-17 pilot with the 19th Bombardment Group at Clark Field in Luzon, Philippines.

Across the runway at Ft. Stotsenburg, 1st Lt. Geis was commander of Battery A, first battalion, 24th Field Artillery.

Elder was enjoying a meatballs-and-spaghetti lunch when a V formation flew overhead. "Gosh," he exclaimed, "the Navy's flying close formation today."

In the next instant Jap bombs and machine-gun fire rained on the two military installations.

Elder scrambled for his plane but was felled by shrapnel. Geis pulled his troops into a nearby culvert. He "vaguely recalls" one of his men blasting away with a Colt .45 at strafing Zeroes.

Elder, along with about 100 other critically wounded, was herded into a wooden inter-island steamer — a one-stacker — which promptly embarked on a circuitous, 27-day trip to safety at Sidney, Australia.

"We hugged the coast trying to avoid the enemy," Elder remembers. "Once we had to slip into a Dutch port to get food and supplies."

At Sidney, the wounded Americans were transferred to the Queen Elizabeth (before it was converted to a troop ship), which returned to the U. S. via Indian Ocean and South American coastal waters.

Elder arrived in New York City May 25 to find that the Philippines had fallen.

Meanwhile, Geis' outfit had pulled back into defensive positions following the "second chapter" of Pearl Harbor at Luzon, there to begin the heroic battle of Bataan.

Geis earned a Purple Heart and was recommended verbally for a Silver Star and battlefield promotion during the delaying action before Bataan fell March 20. He was among about 55,000 Allied troops who started the six-day forced march to O'Donnell Prison Camp.

Geis became a master of survival during the next four years in five different prison camps. When daily fare got down to soup and a cup of rice, normally 170-pound Geis weighed 95 pounds.

Geis used his electrical engineering knowledge to improvise a water and electrical supply system in one camp.

"It helped tremendously," he recalls, "since contaminated water was one of the major reasons for fatalities. The death toll dropped sharply."

The artillery officer who was never to receive his Silver Star or battlefield promotion because most of his fellow officers—including the commanding officer who issued the order—were killed in action, was returned stateside in September, 1945.

He was married in November, 1945—delayed four years by his captivity.



OLD TIMES—Jim Elder, right, and R. W. Geis were both on Luzon in Philippines 19 years ago today—when Pearl Harbor was bombed.

Maryland University Scientist Will Serve Year at Convair SD

Dr. J. B. Marion, associate professor of physics at the University of Maryland, recently joined Convair SD's physics section as visiting senior staff scientist, announced Dr. A. E. S. Green, chief of SD physics.

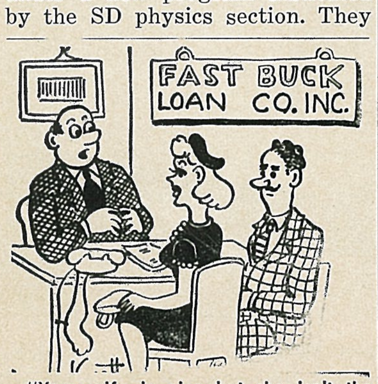
Dr. Marion, who is on a year's leave of absence from his teaching position, is the first of a group of distinguished scientists who will be brought to Convair San Diego in the near future from other parts of this country under a new program instituted by the SD physics section. They will supplement the Convair SD physics staff as consulting and visiting scientists.

A specialist in the field of nuclear physics, Dr. Marion will be concerned with problems in radiations in space during his stay at Convair.

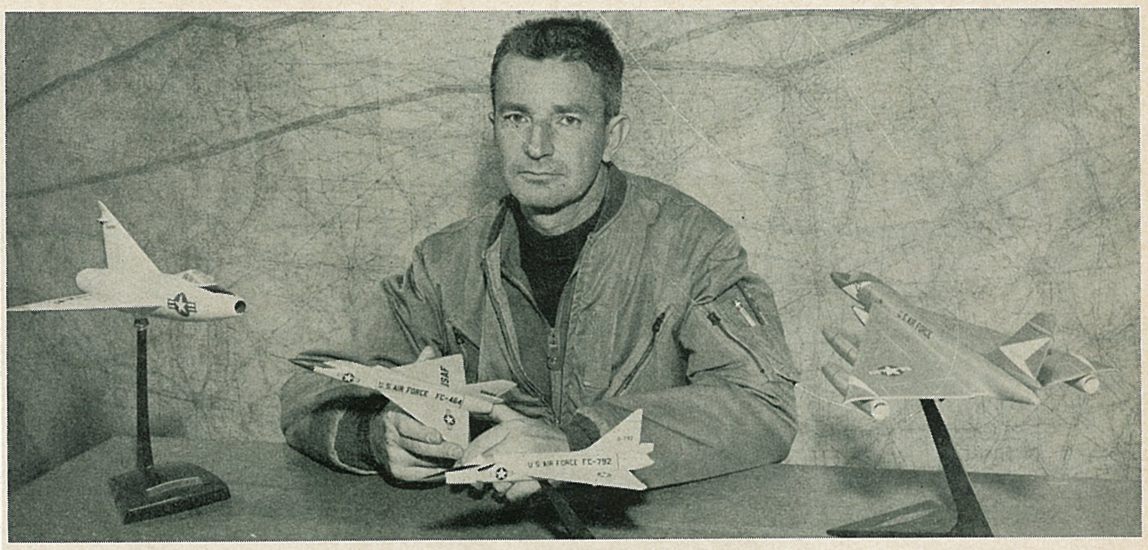
He has done research at Rice Institute, California Institute of Technology, University of Rochester, N.Y., Los Alamos Scientific Laboratory, Oak Ridge National Laboratory, in addition to his work at the University of Maryland. He is the author of numerous articles and books covering the field of low-energy experimental physics.

As vice chairman of the Subcommittee on Nuclear Constants of the National Research Council, he made arrangements for the semi-annual meeting held at Convair San Diego Nov. 18. Attending the conference were 12 scientists from the United States, Canada, and South America.

He also is a member and consultant of the Nuclear Data Group, National Academy of Sciences.



"Your wife is nice but she isn't the kind of collateral I had in mind."



DELTA SWEEP—Dick Johnson, Convair FW manager of flight, is only pilot who has flown all of Convair's famous delta-model planes: F-106 in hand, other models, XF-92, F-102 and Mach 2-plus B-58 Hustler.

FW's New Manager of Flight Is '100 Pct.' in Delta Aircraft

Dick Johnson took the controls of a B-58 this month and promptly became the nation's most versatile "delta-wing" pilot.

Convair's personable new manager of flight is the only pilot around who has flown every delta-wing plane made in this country—the XF-92, F-102, F-106, and B-58 Hustler.

Convair Manager Frank W. Davis helped design the XF-92, first experimental jet, and Johnson flew it back in 1949 while still an Air Force pilot.

"It was strictly a research plane," Johnson said. "My top speed was a subsonic Mach .9."

Johnson joined Convair SD in 1953, after an action-packed 11-year stint as an Air Force test pilot. He resigned as a lieutenant colonel.

His first big job as a Convair test pilot was to take the F-102 aloft on its maiden flight. His ultimate top speed in the nation's first production delta fighter was Mach 1.5.

"I really liked it," Johnson said of the 102's performance. So did the Air Force, which eventually ordered over 1,000 of the supersonic fighters.

Another "first" for Johnson came Dec. 26, 1956, when he took Convair's F-106 interceptor on its first flight and envisioned "great things" for the all-weather fighter. Last year the Air Force made his predictions come true, pushing a 106 up to 1529.9 miles an hour, a new official world speed record.

The record 106 sprint gave Johnson pause. Only a few years before that—in 1951—he himself had set the world's record of 680 miles an hour in an F-86 jet over Edwards AFB!

"In just eight years," he reflected, "the Air Force more than doubled the record."

Johnson's rounded experience with delta-model planes doesn't necessarily overshadow his overall background as a pilot of fighter planes.

During his career as an Air Force test pilot, Johnson flew over 40 British planes, two Canadian, and two Russian—among others. Most of this "international flying" was done at Wright Field and Edwards AFB, some of it in France and England.

But Johnson didn't amass all his flying time in supersonic aircraft. He logged many an hour back in World War II in P-47 Thunderbolts, flying combat sorties in the Mediterranean theater.

He's even had a hand in flying the world's fastest commercial transport—Convair's 880.

Johnson's penchant for speed even laps over into his athletic activities. During his college days he was a fastball twirler for Oregon State. He later pitched for Greensboro — a Boston Red Sox club — in the Piedmont League.

In logging over 7,000 hours flying hours—mostly in fighters —Johnson has naturally had his share of "thrills." But not all of them have been supersonic.

Back in 1935 he flew a homemade airplane with a Model-T engine!

It went nearly 80 miles an hour.

Reps. of AF Attend Storage Conference

About 40 Air Force representatives from across the nation are attending a B-58 weapons system storage site conference Dec. 6-7 at Convair FW.

R. M. Gallagher, spares manager, said spares policies and procedures would also be discussed.

Representatives came from SAC Headquarters, 2nd Air Force, 43rd Bomb Wing, Bunker Hill AFB, and Air Materiel Area headquarters at San Antonio; Oklahoma City; Middletown, Pa.; Warner-Robins, Ga.; Mobile, Ala.; Ogden, Utah; Rome, New York; and Sacramento.

CONVAIR'S NAISH ELECTED BY AIA AS 1961 CHAIRMAN

Convair President J. V. Naish was elected chairman of the board of governors of Aerospace Industries Association for 1961.

Past vice chairman of the association, Naish will hold his present post until Nov., 1961. Election was held at the recent annual meeting of members and fall meeting of the board of governors at Phoenix, Ariz.

Membership of the organization consists of key personnel throughout the aircraft and missile industry. The association investigates, studies, and determines the best solution of industry-wide problems affecting companies involved in aerospace activities.

Also elected to the board were J. E. Rheim of Rohr Aircraft Corp., and Claude Ryan of Ryan Aeronautical Co.

Anyone For Bagpipes? It Helps If—You've Had No Music Training!

Few, if any, people take a "middle of the road" stand when it comes to bagpipes, according to Convair Pomona's Don Hall (Dept. 6).

"In most cases, a person either loves the pipes, or he hates them. Very few people are completely indifferent to them," Hall said.



PIPER—Convair Pomona's Don Hall (Dept. 6), one of few bagpipers who lays no claim to having Scottish blood, is shown here in full regalia. Hall is currently organizing bagpipe band at Convair Pomona, hopes to gain CRA recognition for group.

Hall definitely falls within the former category, although he is one of the few bagpipers around who claims no Scottish blood. At present he is organizing a bagpipe band at Convair Pomona, and is helping to organize another in La Habra.

The Convair organization currently has 24 members, including three drummers. Practically all of the pipers are beginners.

"The bagpipe, although it looks complicated, is really a very simple instrument, and a beginner should become reasonably proficient in about six months," Hall said. "There are only nine notes, and no sharps or flats."

The bagpipe consists of a bag, used to retain air; a blowpipe, to fill the bag; a "chaunter," or "chanter," which is fingered to produce the melody; and three "drones" — one bass and two treble — each of which produces a single, fixed note. A beginner usually starts out with a practice chanter, which costs about $4, to learn the essentials of fingering the instrument.

Oddly enough, previous musical training is of doubtful value in learning to play the bagpipes, Hall said.

"Trained musicians usually have to 'unlearn' a lot before they can successfully play the pipes," he explained.

The Convair group is currently meeting at 4:30 p.m. each Wednesday at the Pomona CRA Clubhouse. All Convair employees and members of their families who are 12 years or older are eligible, Hall said.

Cost of a set of bagpipes ranges from $35 to $375, with much of the cost of the higher priced sets going for ornamentation, Hall said. A good, medium-priced set from Scotland costs in the neighborhood of $100.

Hall said he has always been interested in bagpipes, and while serving in the Army (his division had a small bagpipe band) he decided to do something about it.

Key Scientists Confer at FW On Reliability

About 15 key scientists, quality control engineers and reliability experts met at Convair FW Dec. 7 and 8 for the quarterly General Dynamics panel on reliability.

Nearly 30 were on hand Dec. 6 for the reliability research panel, a prelude to the two-day meeting. N. J. Simpson, Convair FW manager of reliability, chairmanned the research confab.

After welcoming comments by Frank W. Davis, FW manager, conferees heard reports assigned to various panel members in General Dynamics and various operating divisions.

They included:

"Standardization of Reliability Terminology," by A. B. Oxley, Canadair; "Department of Defense Failed Parts Components Condition Code," J. Y. McClure, Convair FW; "Reliability Resource Manual," McClure; "Qualification Testing," T. A. Vogel, Convair Pomona; "Department of Defense Parts Specification Management," Vogel.

"Report on General Dynamics Part in Battelle Institute Program," McClure; "Reliability Research Panel Report," Simpson; "Reliability Personnel Qualifications and Training," W. R. Monroe, Convair SD, who is chairman of the panel.

A general interest report was scheduled for L. B. Richardson Sr., vice president engineering, General Dynamics, Washington.

Other reports slated for the two-day meet include: "Monitoring of B-58 Reliability Program," G. H. Craig, Convair FW; "Motivation of Engineers to Design for Reliability," Monroe; "Reliability Assurance, Reporting," A. C. McMaster, Convair Pomona; "Development and Utilization of B-58 Reliability Program," R. D. Chase, Convair FW.

"Reliability Determination of Electronic Switchboards through Failure Reporting," W. P. Karas, Stromberg-Carlson; "Effects of Maintenance on Reliability," W. F. Caffrey, Convair FW; "New Concepts of Reliability Determinations of Transistor Diodes through Analysis of Variance," Karas.

A discussion of new business and plant tour will round out the conference.

Attending were representatives from General Dynamics-N. Y. and Washington; Canadair; Convair Astronautics; Convair Pomona; Convair SD; Convair FW; Electric Boat; and Stromberg-Carlson.

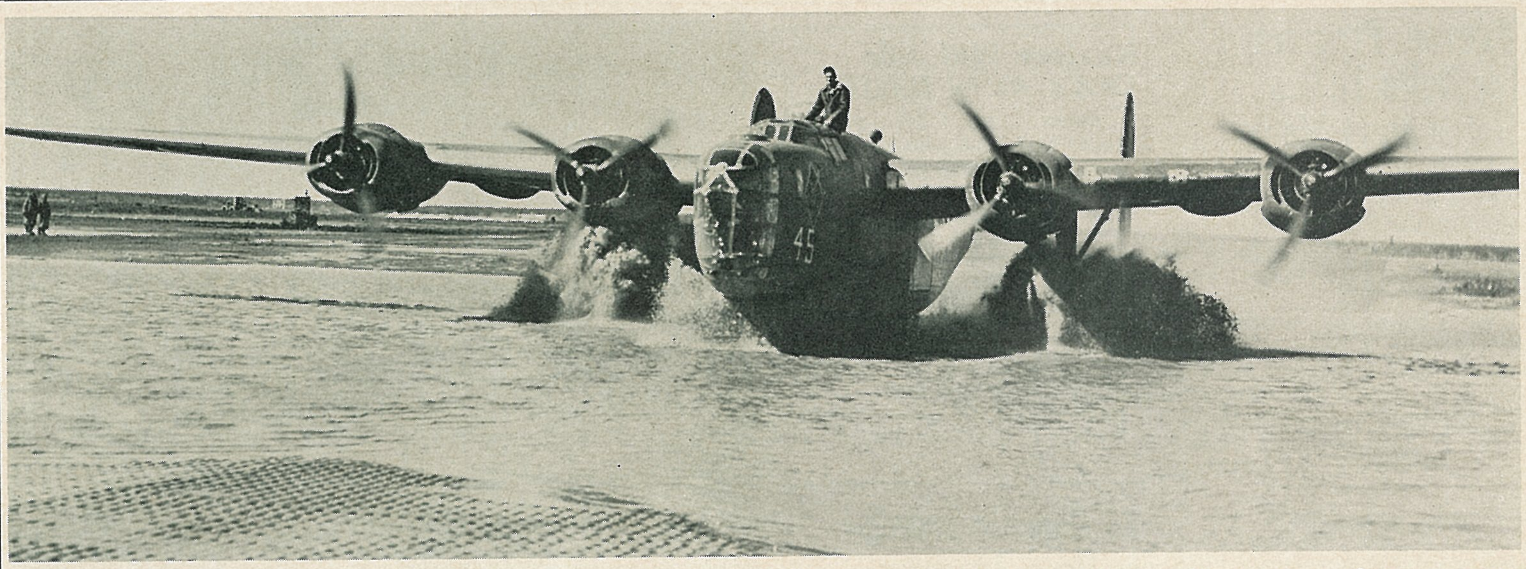
Reps. to Confer On Reliability

Representatives from each Convair operating division and other divisions of General Dynamics are expected to attend the Seventh National Symposium on Reliability and Quality Control.

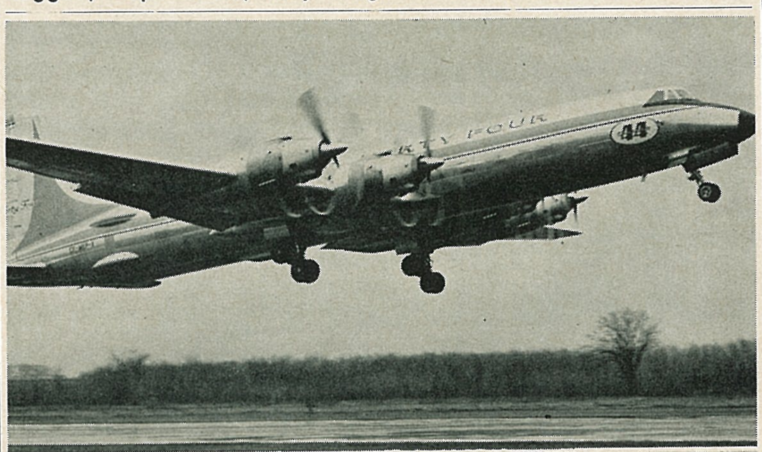
The symposium, which will be held in Philadelphia Jan. 9-10-11, is an annual attraction, sponsored jointly by the Electronic Industries Association, American Institute of Electrical Engineers, the Institute of Radio Engineers, Inc., and the American Society for Quality Control.

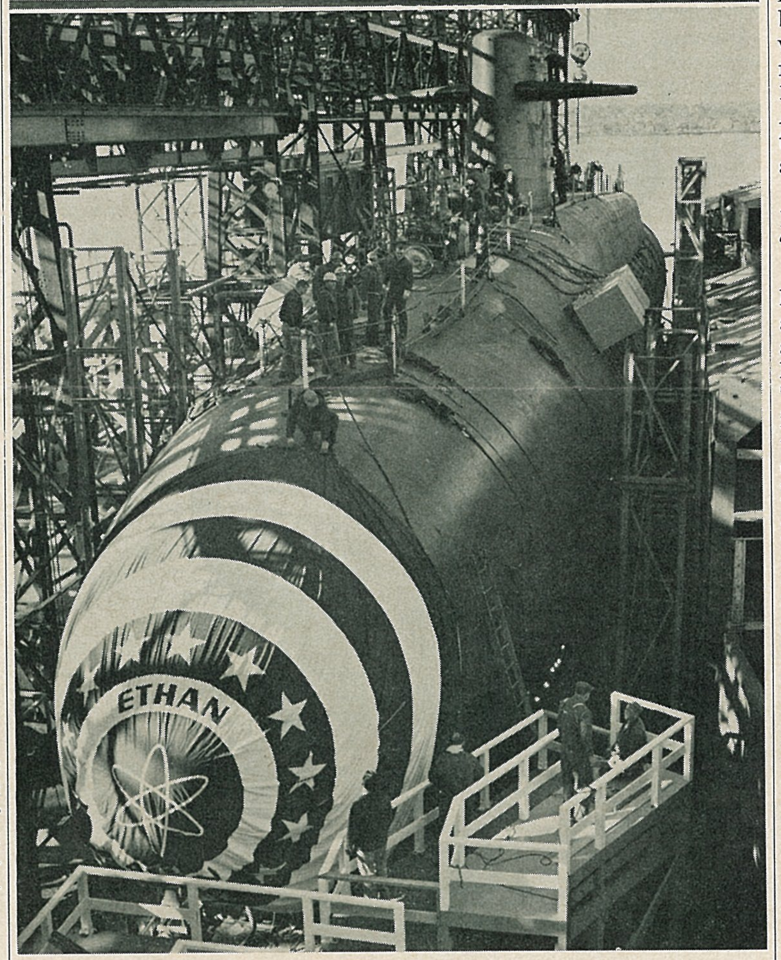
Among those presenting papers at the symposium will be Dr. David Meister, Convair Astronautics design specialist in charge of the reliability human engineering group. His subject will be "Reliability Education—Success or Failure."

The symposium is regularly attended by representatives of industry, education, Department of Defense, and others. Some of this year's session titles are system reliability, accelerated testing, reliability prediction, mathematics and models, reliability costs, statistics, reliable design, and reliability management.

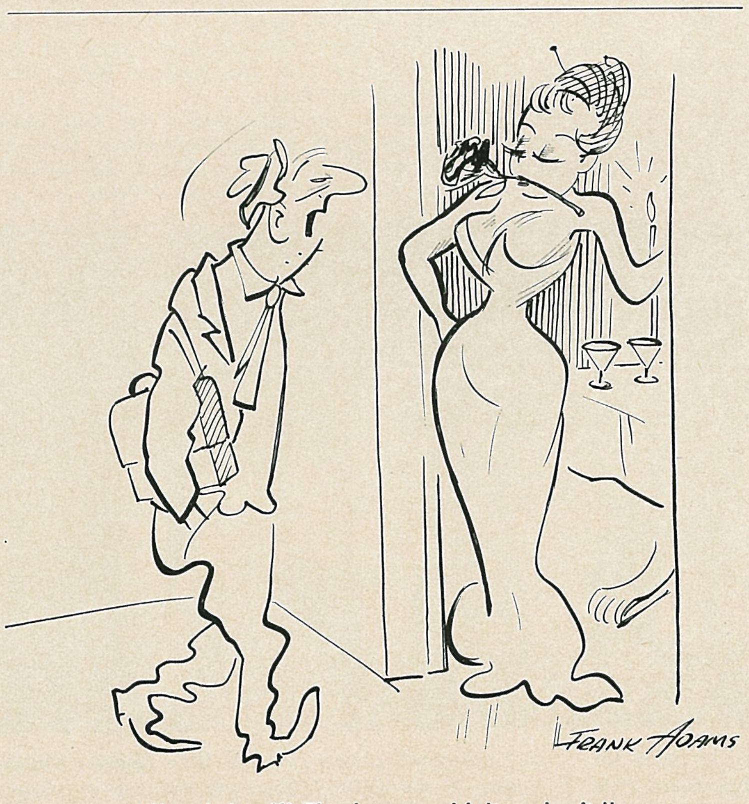


SEAPLANE?—Just 19 years ago today U. S. B-24s went to war and a B-24 was among casualties during attack on Pearl Harbor. Rugged, dependable, they fought in all theaters and not all "heavy going" was in air, as this wartime photo suggests. Liberator splashes home on mud and water field following mission.





NEWS MAKERS—General Dynamics' (Electric Boat) Polaris-firing Ethan Allen was launched last month and drew more than expected headlines when unscheduled swimmers tried to board her. In top photo is Canadair's "Forty Four" cargo airplane on first flight. Plane is unique in that it has hinged swing-tail for loading.



"Knock it off! The boss couldn't make it."

Tough, Far Flying

Reputation of B-24 Liberators Based on Range and Ruggedness

(This 49th installment of Convairiety's continuing history of Convair and its products begins saga of B-24 Liberator and its role in World War II.)

Four-engine Liberator bombers were most famous for their range, which enabled them to make the longest strikes staged by "heavies" on either side of the world—the 2,350-mile Balikpapan raids in the Southwest Pacific in 1943 and the missions from North Africa against the Romanian petroleum center of Ploesti in 1942 and 1943.

("Heavies" included B-17s and B-24s; the B-29s and B-32s were "very heavies.")

In the months before Pearl Harbor, range and carrying power also made the B-24 attractive as a transport for the new Air Corps Ferrying Command (later the Air Transport Command) and it was in this capacity that the Liberator saw its first military duty. On July 1, 1941, Lt. Col. Caleb V. Haynes opened the AAF overseas route to England with a B-24, taking off from Washington to fly to Scotland via Montreal and Newfoundland. On Aug. 31, Haynes and Maj. Curtis E. LeMay (now AF vice chief of staff) pioneered the South Atlantic route in a B-24, carrying Maj. Gen. George H. Brett to Cairo on a special mission. (Brett was so impressed by the bomber's range that he suggested to the British that they divert B-24 deliveries from England to the Middle East.)

In September, two B-24s carried part of the Harriman Mission to Russia, flying 3,150 miles nonstop on the Scotland-Moscow leg of the trip. Returning, these planes surveyed routes that later would bear heavy military traffic. Maj. Alva L. Harvey routed his flight via the Middle East, India, Australia and Hawaii. Lt. Louis T. Reichers flew from Moscow to Cairo, and thence across central Africa to Brazil.

The British put their early Liberators (which they called LB-30s) to work as transatlantic transports for ferry pilots, or as long-range anti-submarine planes. One was modified as a personal transport for Prime Minister Churchill, and named "Commando"; it carried him to the Casablanca and Cairo conferences.

In order to obtain sneak photos of the Japanese bases at Truk and Jaluit, two B-24s were specially modified and armed in 1941 for a flight from Hawaii to the Philippines. These were the first Liberators assigned to the Pacific, and one of them became the first U. S. B-24 casualty of the war. It arrived in Hawaii Dec. 5 and was blown to bits on the ground in the Japanese attacks of Dec. 7.

The AAF's "Project X" followed, for rushing bombers to the relief of the Philippines. The first step was to repossess 15 British LB-30s that were still in this country. None reached the Philippines but four traveled via Africa and India in time to join the 7th Bombardment Group on Java in January. On the 16th, three of these LB-30s and two B-17s under command of Maj. Austin A. Straubel took off from Singosari airfield, Malang, to strike Japanese shipping in Manado Bay and bomb Langoan airfield. This appears to have been the first U. S. Liberator bombing mission of the war. Another "first" grew out of the same mission, when Lt. John E. Dougherty's bomber crash-landed on an islet off South Borneo. Eight days later the crew was rescued by a Navy Catalina—a feat to be repeated scores of times for Liberator crews in the years ahead.

Subcontractor Study To Achieve Savings On Hustler System

A saving of 30.4 per cent in manufacturing cost of the B-58 AC generator drive system was proposed at a Westinghouse value analysis seminar Nov. 12-23.

Over 25 employees proposed combined savings of $177,183 in the seminar held at Westinghouse's aircraft equipment department, small motors division, Lima, Ohio.

The meeting was organized by Bill McMurry, value control training coordinator, and B. W. Kahla, deputy division coordinator at Convair FW. Westinghouse had requested Convair's assistance in setting up such a program.

Jack Sourwine, Westinghouse purchasing superintendent, conducted most of the sessions. He had previously attended a similar seminar at Convair FW.

Plant Manager R. W. Esarey said his company would hold at least four additional seminars "in the near future."

Meanwhile, Convair FW's fourth value engineering seminar started Dec. 5 and will run through Dec. 16. Forty people are attending, including a four-man team from Emerson Electric.

Investment Class To Be Repeated as Often as Required

A special 10-hour course in "Securities and Investments" will be repeated several times over the next few months in Conference Room 18 at Fort Worth.

Nearly 225 people signed up for the five-session course, according to J. V. Van Ness, special courses chairman.

"We'll run the course until everyone has had a chance to take it," Van Ness said. "However, classes will be limited to 30 each."

First class was started Nov. 23, with 28 attending. It was conducted by Goodbody and Co.

Two other classes will get under way Jan. 10 and 11 in Conference Room 18, Van Ness said.

'Prevue' Program For Delta Ladies Slated Next Week

A "Holiday Prevue" program is scheduled for Delta Toastmistresses and their guests next Tuesday (Dec. 13) at 7 p.m. in the Sunset Room of Town and Country Hotel.

Highlight of the Christmas dinner meeting will be a talk and demonstration on microphone technique by Molly Morse of KFMB. Fran Leland of the AF office at Astronautics, past president of Council #7, will also speak.

Others taking part will be Juanita Wilson (SD-Dept. 190-2), club president, presiding; Sunny Cooper (AF office at SD), topic mistress; Marge West (SD-Dept. 6), jokemistress; Lee Betts, wife of Les Betts (Dept. 4), invocation.

Reservations at $3.35 each are being taken by Sunny Cooper, ext. 1186, Plant 1. The meeting is open to anyone interested.

Astro Fencers Enter Tourney

Convair Fencing Club was represented recently in the epee competition of the Amateur Fencers' League of America meet in Los Angeles.

Representing the club was an epee team which included Mike Hurley, Dept. 597-1, Lowell Dubberke, Dept. 535-3 and L. E. "Jeep" LaMonte, Dept. 280-5, all of Astro.

The fencers also exhibited their art at a recent dance sponsored by the Astro CRA teen-age club. Demonstrating men's epee and men's and women's foil fencing were Hurley and Dubberke, and Convair daughters Barbara Proppe, and Marlene and Marilyn Qualiato.

Cyclists Take Part In Turkey Caravan

Thirty-five cyclists were on hand Nov. 13 when the Astro Motors staged a "turkey caravan" to Idyllwild, according to CRA Commissioner Paul Shannon.

Part of the festivities included the raffling off of five turkeys.

Shannon and his wife, Gloria (Dept. 131), took part in the 22nd annual "turkey run" presented Nov. 20 by the Aztec Motorcycle Club. The Shannon duo garnered 983 points to place 14th in a field of 52. John Clark (Dept. 181) collected 967 points on his first try at such an event.

Top Judge Selected For Photo Contest

J. Alan Foster, West Coast regional director for the Photographic Society of America, will judge entries in Astrolens' annual print of the year contest at 7:30 p.m. Dec. 18.

Winners in the group's final quarterly contest were Dick Horsley (Dept. 337-2) in black and white and R. E. Waters (Dept. 561-2), Phil Raney (Dept. 401-0) and Ken Rinker (Dept. 598-2) in color.

Novices Will Join CRA's Astro Nauts

Astro Nauts, CRA square dance club will hold its second annual Christmas party from 8 p.m. until midnight, Dec. 10, in San Marcos Barn, Escondido.

"Santa Claus" is expected to visit the party with gifts and refreshments.

Joining regular club members for the first time will be the "Why-Not-Be?" beginners dance class. This group meets regularly on Tuesday nights at Jackson's Barn off Fairmount extension.

30 Convair Squads In Hoop Tourneys

Thirty plant league basketball teams sponsored by Astronautics CRA, and including three squads from Convair SD, are practicing for pre-season play.

Ten second-shift teams are taking part in a pre-season series which began Dec. 3 in the municipal gymnasium in Balboa Park's Federal Bldg.

Openings are still available on some teams, and interested employees may obtain additional information by calling Astro's Ray Mendoza, ext. 1111.

Young Astronomers Will Host Program

San Diego Youth Astronomy Club will host a special program Dec. 9 at Juniper School in Escondido which will be open to all interested parents and students in that area.

Beginning at 7:30 p.m., the evening will feature an accordion band concert, then an illustrated talk on space by Convair Astro's F. A. Ford, chief of preliminary design.

Gen. Atomic Team Shades CRA Entry

Astronautics CRA Chess Club met a strong General Atomic team in a match Nov. 21 in Astro cafeteria. The club team yielded the seven-game series by one point, 3-4.

Representing Astro were J. Miller, J. Forsythe, J. W. Horning, A. Schwartz, J. Crane, E. J. Fagan and P. Miller. Miller, Horning and Fagan collected wins during the evening.

Next club meeting will be at 7:30 p.m., Dec. 15, in the cafeteria.

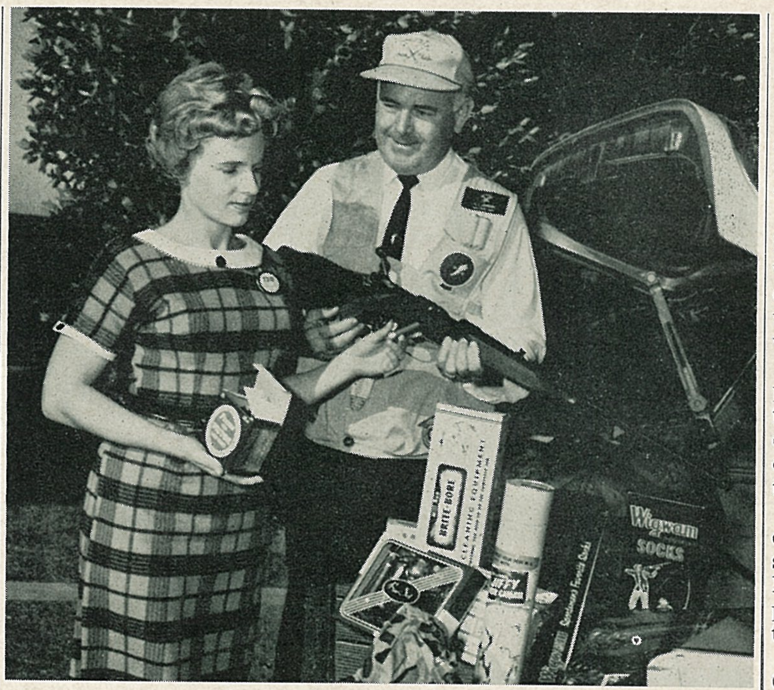
New Officers Named By Astro Riding Club

Astro Riding Club elected officers at a recent business meeting, with three incumbents retaining their posts.

Bill Dortch is the new treasurer. Art Smith Sr., president, L. H. Sanders, vice president, and Ardelle Sarkness, secretary, returned to office.

Pecan Park Nuts On Sale Now at SD

Newly-harvested pecans from Convair SD's Pecan Park are on sale at employee services at SD Plant 1. Packaged in one and two-pound packages, they are selling for 50 cents a pound.



HUNTING REWARDS—Cindi Bailey (Astro Dept. 130-5) and CRA Gun Club Commissioner Ezra Johnson display prizes which will be awarded Dec. 13 at annual Big Game Drawing. Entries will be accepted until shortly before drawing at 7 p.m. meeting in Natural History Museum, Balboa Park.

Deadline Extended for Entries In Big Game Drawing Dec. 13

A jam-packed program, highlighted by the annual Big Game Drawing, will be presented by the Convair SD-Astro Gun Club on Tuesday (Dec. 13).

Because of the large turnout expected the meeting will be held in the auditorium of the Natural History Museum in Balboa Park starting at 7 p.m.

CRA Commissioners Ezra Johnson and Jack Swank last week urged all hunters at Convair SD and Astro to enter their big game "kills" in the drawing. Each entry will have an equal opportunity to win one of the dozen hunting prizes to be awarded, which include a Winchester Model 70 and other hunting equipment and apparel.

Entries will be accepted up to and including the evening of the drawing. Forms are available at employee services at both SD and Astro. Big game "kills" of either sex will be accepted in the drawing, including deer, moose, bear, elk, etc.

The entire family is invited to attend the meeting. Soft drinks, coffee and doughnuts will be served. A number of pheasants will be given as prizes in a free raffle.

Featured presentation at the meeting will be a sound movie, "Air Pack Trip in Primitive Idaho," which will be shown by Horace Carr, local sportsman and captain of the Deputy Game Wardens for San Diego County.

Also in attendance will be Ed Green, regional big game manager, and Ned Dolihyde, captain of Game Wardens for San Diego and Imperial counties.

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Two major shooting attractions will be staged by Convair SD-Astro Gun Club on consecutive Sundays this month at the CRA Range, Gillespie Field.

A registered ATA Trap Shoot will get under way on Dec. 11 at 9 a.m. with prizes of silver service going to the top contestants.

A total of 250 targets will be thrown up, including 100 at 16 yards, 100 in the handicap bracket, and 25 pair doubles.

On Dec. 18 the fourth annual Christmas Shoot will be launched at 9 a.m. featuring events in trap, skeet and skee-trap.

A variety of prizes will be on hand for winners in each squad. Shooters will be vying for dinners at the Cotton Patch Restaurant, hunting accessories, costume jewelry, kitchen accessories, hams, radios and many other prizes.

Baby 'Thank You' Note Sent Blood Donors

One of the most unusual—and certainly the cutest—"thank you" notes yet received by employee services came in recently addressed to all Astronautics employees.

It said, simply: "Thank you very, very much for the blood which you so kindly donated that helped save my mommie's life when I was born August 11 1960." It was signed Carol Ann Cornish and carried the baby's photo.

Mrs. Cornish, wife of Astro's Frank Cornish of Dept. 270-0, needed eight pints of blood. She received a maximum of five pints from the Astro blood bank credit and volunteers from quality control department supplied the remainder.

Astro Players Win Badminton Turkeys

Alex Krohn (Dept. 191-0) and Al Pfennighausen (Dept. 321-7) carried home turkeys Nov. 20 when Astro CRA staged its third annual badminton turkey tournament at the Federal Bldg., Balboa Park.

Special awards for top positions in the tournament went to Dick Mitchell (Dept. 130-5) and John Leib (Dept. 556-5).

CHRISTMAS TREES TO 'GROW' AT ASTRO

Astronautics' traditional plant Christmas decorations are scheduled to be erected early next week.

Center attraction this year, as in years past, will be a 25-foot white Christmas tree in the reception center lobby (Bldg. 2). It will be decorated and lighted as will all trees at Astro.

A second large tree will be placed in the vicinity of the cafeteria. In addition, a tree will be erected in the Plant 2 area and one at each major plant exit at the main plant.

Again this year the reception center reflection pool will carry signs inviting folk to toss coins. Money collected will be used to provide Christmas gifts and food to needy families.

SALVAGE STORES SCHEDULE LISTED

Convair employees' salvage stores at both San Diego and Astronautics sites will be closed during the holiday weekends over Christmas and New Year's.

Coming schedule for both plants, on an alternating Saturday basis, is: San Diego—Dec. 10 and Jan. 7; Astronautics—Dec. 17.

Hours at the Convair San Diego salvage yard are from 7:30 a.m. to noon; at Astronautics yard, 8 a.m. to noon.

Employees from either SD or Astro may shop at either location.

'Ten Commandments' Bargain Offered

Astro employees can now see Cecil B. DeMille's production of "The Ten Commandments" at a cost of only $1.50 for the entire immediate family.

The movie is playing nightly at 7:30 p.m. at the Linda Theater, Linda Vista, through Dec. 24, with 1 p.m. matinees Saturdays and Sundays.

Exchange coupons entitling the bearer to the special ticket rate are available at all Astro employee services outlets.

Tryouts Scheduled For Little Theater

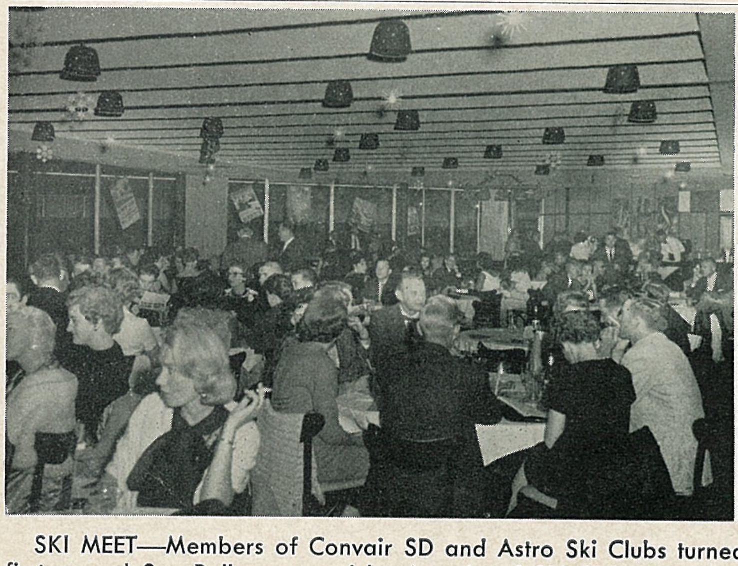
Tryouts for the Astro Players production of "The Loud Red Patrick" have been set for 7:30 p.m. Dec. 13 and 14 at the La Jolla Community Center, 615 Prospect, La Jolla, according to Director George Lowin.

The cast calls for two young girls, 7 and 10, and two teen-age girls, 16 and 17, as well as an 18-year-old boy, three men and one woman.

$1 TURKEY DINNER OFFERED DEC. 21

Turkey and all the trimmings will be menu of the day at all Convair San Diego and Astronautics cafeterias Wednesday (Dec. 21).

Complete menu, all for $1 including tax, will be roast turkey, dressing, cranberry sauce, whipped potatoes, green peas, cole slaw, pie, and choice of drink.







SKI MEET—Members of Convair SD and Astro Ski Clubs turned out in force for first annual Sno Ball sponsored by Associated Ski Clubs of San Diego. Astro club handled fashion show arrangements; SD members put out program brochures.

In "princess" photo Convair SD's Sharon Maidens is in center and Astro's Shirley Kuhns is at right. Other candidates represented San Diego, Solar, and Don Diego Ski Clubs.

Broadway Hits Shoot 'Double'

Another Pistol Club "double" win was notched Nov. 27 by B. L. Broadway (Dept. 115) who placed first in both the police course and short national events.

In the latter event Broadway scored 271 points, four better than the tally of runner-up Jim Halfacre (Dept. 180). Ranked third was Ash Bishop (Dept. 400-2) with 262 points; Joe Williamson (Dept. 401-5) was fourth with 260.

To lead the police course master class Broadway tallied 295 points and Carl Hornburg (Dept. 139) was second with 289.

In other categories, Ralph Picard (Dept. 7) led the experts with 282 points, followed by Bill Dittmann (Dept. 6) with 277. Top sharpshooter was Dorcus Utter (wife of Arley Utter, Dept. 119) with a 272 score. A. B. Carlson (Dept. 68) landed in second with 259. First and second spots in the marksman class went to Arley Utter with 248 points and Bill Ginsky (Dept. 6) with 238.

Archers Slate Turkey Shoot

Luck, not skill, will separate the winners from the losers at a Convair SD Archery Club Turkey Shoot Sunday (Dec. 11).

Beginners and experts will have an equal opportunity to win a "bird" at the tourney which will open with registration at 9:30 a.m. at the Balboa Park Field Range.

The turkey theme will be carried over into the junior division but the "birds" will be a featherless variety made of candy.

Al Phipps, club president, reminded prospective members that they must join the club before the day of the shoot in order to participate. They should signify their intent to join the club by calling ext. 1245, Plant 1.

Because of the holiday season, no December meeting will be held by the Convair SD Archery Club. Next meeting will be held Jan. 19.

Movie Tonight For Car Club

A 45-minute film, "1959 Porsche Club Tour to Germany," will be screened by members of Convair SD Sports Car Club at a meeting tonight (Dec. 7).

The color movie will follow a 7:30 p.m. business session in the Balboa Park Natural History Museum.

At the last club-sponsored event, an "Odds and Evens Rally Tour," the first-place winners were Emily and Tommy Jackson (Dept. 6) driving a Peugeot 403. A total of nine cars finished the five-hour trek.

In recent outside competition the driver-navigator team of Tommy Jackson and Peter Aperlo placed second in the "Spinning Wheels Rally," a championship event of the San Diego Council of Sports Car Clubs.

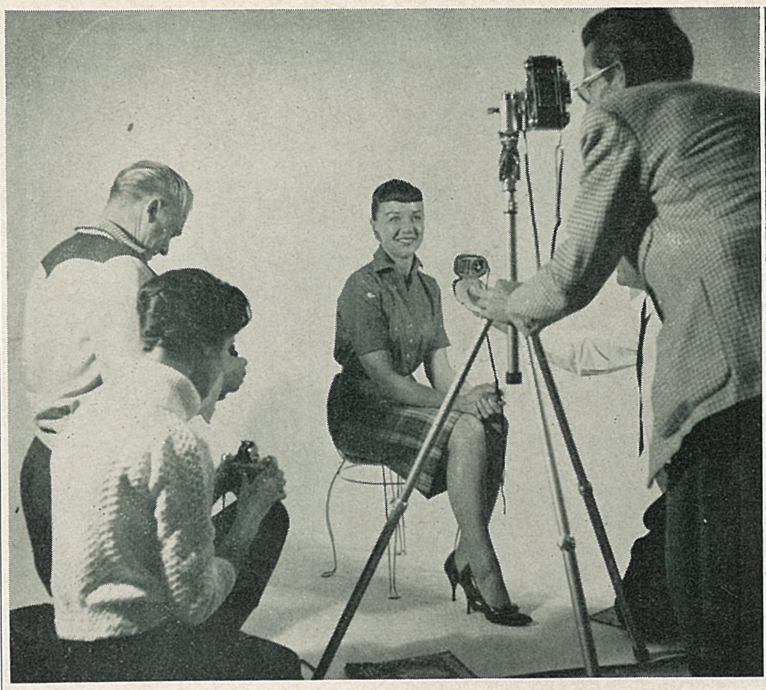
Free Skiing Class Offered Members

A special "bonus" is being offered prospective members of Convair SD Ski Club if they act fast.

Starting tomorrow night (Dec. 8) at 8 p.m. the first of three Dry Land Ski School lessons will be held at the La Jolla Community Center.

Convair SD persons who attend the session and indicate their interest in joining the Convair Ski Club will be tutored free of charge.

Course cost, sponsored by the YMCA, is regularly $17. Especially planned for novices and beginners, instruction covers all fundamentals, use of equipment, safety positions on skis, maneuvering techniques, etc.



SHOOT SESSION—Models LaVon Hibbs (Dept. 292), on left, and Miriam Newman posed faithfully for more than score of Convair SD Camera Club members at meeting last Tuesday.



Photos of members and models were snapped by CRA Commissioner C. E. Schultz. Selection of year's best print and slide will be made at Dec. 12 meeting.

CRA Sports & Recreation Convairiety

80 CRA Participants Win Holiday Turkeys

Fifteen Convair SD Recreation Association clubs and sports activities last month trotted out almost 80 turkeys as prizes in different events and competitions.

Bowling, Convair SD's largest participation activity, topped the turkey list, supplying Thanksgiving birds for no less than 36 keglers.

Most of the gobblers went to winners of different events (such as golf, bowling, pistol shoot) but a few birds were given to members who have devoted much time and effort to make their club a successful activity.

Following is list of Convair SD persons who received CRA turkeys for Thanksgiving.

Fishing Club: Mrs. D. McDaniel, Mrs. R. Menzie.

"8" Ball (pool tourney in CRA Clubhouse): Don Ehrreich, Ray Minutillo.

Rockhounds: D. F. Whitman.

Coin Club: Douglas Decker.

Tropical Fish Club: Herb Sickler.

Trailer Club: Rolland Lathrum.

Pistol Club: Ash Bishop, B. L. Broadway, A. B. Carlson, Jim Halfacre, and Ralph Benson.

Gun Club: R. Cunningham, J. P. Grace, Jim Mavis, R. V. Marlowe.

Sports Car Club: two to be awarded at rally.

Golf: Wayne Hines, John Machamer, G. Hasti, Ken Eastin, Toby Hunley, Hugh Wilkinson, Lee Woll, A. Dresroshier.

Ski Club: George Walsh.

Softball: Tommy Martinez.

Solo Flyers: Rex Robinson, Gary Witt, Ted Sanford and V. Korski.

Garden Club: E. L. Zimmerman, Carl Swanson, Levonne Splinter, Walter McVay, Mrs. Mary Bohler, Mrs. S. Harris.

Bowling: Jim McCaffrey, Ken Snyder, Edith Bingham, Paul Goforth, Hal Brown, Wayne Voigt, Rocky Armendariz, C. Skeen, R. E. Johnston, G. Erickson, A. Navoy, Marilyn Grimes, Ike Harper, Alex Munchweiler, Al Pushie, Don Stone, H. Craig, Danni Carlton, R. Saunders, Gloria Schneider.

And Joe Rudis, Corky Phipps, Walt Beyer, Harry Stewart, Pat Newberry, Ted Jones, George Paul, Lee Warden, Evelyn Carson, Tom Ward, Rudy Keisel, Fusa Shimizu, Robert Christian, Richard Hanson.



PROSPECT — Eight - year - old Kristien Kemmer, daughter of W. G. Kemmer (Dept. 98-8), displays smooth southpaw tennis form that has won her ranking as best nine-year-old-and-under in San Diego County. Kristien collected her first tennis trophy at age 7.

50 Players Enter Toss Tournaments

Washer pitching and horseshoe tournaments staged recently by Convair SD service parts involved almost 50 participants.

Winning women's team members in the washer toss were Lydia Stethan and Brenda Sturdyvin. Ben Leyrer and Don McCormick won the men's doubles event.

Leading the way in the horseshoe doubles bracket were Ike Harper and Don McCormick. Ken Smith won the singles championship edging runner-up Ike Harper. All of the Dept. 15 winners received CRA trophies.

Delta Divers Plan Meeting on Dec. 20

Monthly meeting of the Convair SD Delta Divers will be held one week early, on Tuesday (Dec. 20) at 7:30 p.m., at the Uptown Aquaria, 3410 5th Ave.

President Harry Ruscigno said members and guests participating in the club's weekly dives are continuing to meet each Saturday morning at 9 at the Diving Locker in Pacific Beach.

Hoedowners Elect Officers; Plan Xmas Party on Dec. 20

Convair SD Hoedowners will hold their annual Christmas party for both beginners and regular club members on Tuesday (Dec. 20) in the American Legion Hall, 4061 Fairmount Ave.

The special holiday event, which will include movies and treats for the children, will replace the regular party night which would have fallen on Christmas Eve. Other club activities will be curtailed during the holiday season. The regular schedule will be resumed on Tuesday (Jan. 3).

Results of the recent square dancers' officers election were also announced by CRA Commissioner Maury Scholz.

Couples stepping into the new posts are Stan and Louise Fandel, president; Carl and Gladys Bishop, vice president; Murray and Marian Armstrong, secretary.

Others handling club duties include Lloyd Burris and Dorothy Daughn, publicity, and Roy and "Corky" Cowley and Larry and Vergie Bishop who will be representatives to the San Diego Square Dancing Association.

Members are reminded that tickets for the Tri-Association Officer's Ball are now available. The Convair Hoedowners will sponsor the dance on Jan. 28 in the American Legion Hall.

Fishing Club Plans Annual Xmas Party

Annual Christmas party and nomination and election of new officers will be staged by Convair SD Fishing Club Tuesday (Dec. 20) at a meeting in the CRA Clubhouse, Gillespie Field.

Reservations for the party, which will start at 5:30 p.m., can be placed by calling Ruth Menzie, AT-1-8247.

Officers will be nominated and elected at a brief business session which will get under way at 7 p.m. A $10 prize for the best catch in the November Fishing Contest will also be awarded.

All Convair SD fisherman are invited to attend. Family participation is especially encouraged. There is no charge for membership in the club.

COIN CLUB SLATES OFFICER ELECTION

A new slate of officers for 1961 will be elected by Convair SD Coin Club at a Tuesday (Dec. 20) meeting at 7:30 p.m. in the Hearing Aid Society Bldg., 3843 Herbert St.

Nominated at the November club meeting were Al Baber, president; Norm Neault, vice president; Steve Ames, secretary; and Frank White, treasurer. Additional nominations will be accepted from the floor at the December meeting.

Also on the agenda will be a door prize drawing, coin auction and refreshments. All Convair persons and members of their family are invited. New club membership cards for 1961 will be issued.

CRA Calendar

(Convair SD Recreation Association has some 40 activities in operation. For information on SD sports, call CRA headquarters, ext. 1245, Plant 1.)

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ARCHERY—Turkey shoot Sunday (Dec. 11) Balboa Park Field Range. Registration at 9:30 a.m. No December club meeting.

BRIDGE CLUB—Next session Tuesday (Dec. 20), 7:30 p.m., Hotel Barcelona, 326 Juniper St.

CAMERA CLUB — Meeting Monday (Dec. 12), 7:30 p.m., Balboa Park Photo Arts Bldg.

COIN CLUB — Election of officers Tuesday (Dec. 20), 7:30 p.m., Hearing Aid Society Bldg., 3843 Herbert St.

DELTA DIVERS — Meeting Dec. 20, 7:30 p.m., Uptown Aquaria, 3410 Fifth Ave. Weekly dives each Saturday, Diving Locker, Pacific Beach, 9 a.m.

FENCING—Workouts and instruction every Friday, 7:30-9:30 p.m., YWCA, 10th and C Sts.

FISHING CLUB — Annual Christmas party and election of officers Tuesday (Dec. 20), 5:30 p.m., CRA Clubhouse, Gillespie Field.

GARDEN CLUB — Christmas party Dec. 14, 7:30 p.m., Floral Assoc. Bldg., Balboa Park.

GUN CLUB—Big Game Drawing at Dec. 13 meeting, 7 p.m., Natural History Museum auditorium, Balboa Park. Registered ATA trap shoot Dec. 11, 9 a.m.; Christmas shoot Dec. 18, 9 a.m., Gillespie Field range.

JUDO—Workouts and instruction every Thursday in CRA Clubhouse, Pacific Hwy., 6-7:30 p.m.

MOVIES—Reduced-price movies Fridays, Saturdays, and Sundays at Adams Theater, 3325 Adams Ave. Adults: 50c; children under 12 free, if accompanied by adult.

PISTOL CLUB—Next regular monthly shoot Sunday (Dec. 11) San Diego Police Pistol Range, 9:30 a.m.

RADIO CLUB—Next meeting Thursday (Dec. 8), 7:30 p.m., Harbor Drive headquarters.

ROCKHOUND CLUB — Rockhound Shack, Pacific Hwy., closed from Dec. 13 until Jan. 9.

SKI CLUB—First Dry Land Ski School lesson tomorrow (Dec. 8), 8 p.m., La Jolla Community Center.

SQUARE DANCING — Christmas party for all classes Dec. 20, 8 p.m., American Legion Hall, 4061 Fairmount Ave. No fourth Saturday night party scheduled in December.

VOLLEYBALL — Two - man leagues now playing every Monday at 7 p.m., Balboa Park Federal Bldg.

Europe, Far East Accept F-102As as No. 1 Defense

Convair F-102As are being accepted as the No. 1 defense weapon system in Europe and the Far East, say C. H. (Tex) Clements and Rudy Haas, Convair's field service area supervisors in foreign countries, back in San Diego for a short stay.

Returning to the SD home plant for the first time in their two years of duty, they were enthusiastic about the reception of Convair jet interceptors on foreign soil and the interest other peoples show in the Convair planes.


Tex Clements


Rudy Haas

Clements, as area supervisor directing Convair's support activities for European-based F-102 squadrons, is stationed at Lindsey Air Station, Wiesbaden, Germany, headquarters of USAFE. At present there are 16 Convair SD field service and logistics support representatives stationed at the five F-102 squadrons activated by USAFE since early 1959.

They include three in Germany—525th FIS, Bitburg Air Base; 496th FIS, Hahn AB; 526th FIS at Ramstein, headquarters of the parent 86th Fighter Interceptor Wing. Spain has two F-102 squadrons under the 65th Air Division—the 497th FIS at Torrejon, and the 431st at Zaragoza. Now in transitioning stage is the 32nd FIS to be stationed at Soesterberg Air Base, New Amsterdam, Holland.

Haas supervises field service operations for the Far Eastern area with squadrons at Naha Air Base, Okinawa, the 16th FIS activated in March, 1959; 509th FIS at Clark Air Base in the Philippines; and three in Japan, the 4th FIS, Misawa; 68th FIS, Itazuki; and 40th FIS, Yokota. Fourteen Convair SD field service representatives are assigned to the Far East field now. Haas is based at 5th Air Force headquarters at Fuchu Air Station, near Tokyo, Japan.

Both Clements and Haas make swings around their complete territory at least once every two or three months to make personal contact with Convair SD reps and AF officials. They keep in constant touch with interceptor service headquarters at San Diego.

Says Clements, "Communications between Germany and San Diego are fantastic. I can get a call through to San Diego in five minutes on the direct line, when I often wait an hour to get through to a base 50 miles away."

They both enjoy their assignments in foreign bases, with the accompanying contacts with other nationalities, and ideas and customs of other countries. Clements and his wife occupy living quarters in an ancient hotel which has been in the same family over 300 years. Now modernized, it offers running water and steam heat. Haas and his family make their home in an American-style house in the suburbs of Tokyo and do their shopping in the nearby Japanese shops.

They say that there is very little language difficulty as most of the civil service employees assigned to AF offices speak English.

Both men will be returning to their posts soon following a two-week briefing to exchange information and receive the latest details pertaining to interceptor service activities.

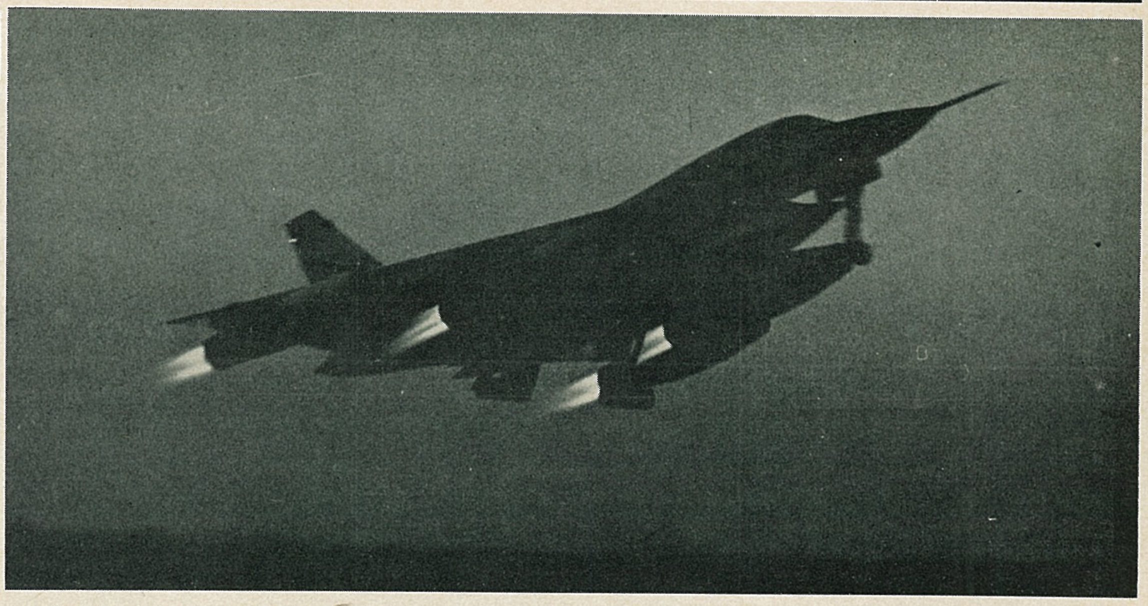

JET "TORO"—Senor Joselito Lahuelta, Spanish banderillero, tries out pilot's place in F-102A jet interceptor, based at 431st FIS, Zaragoza, Spain. Lahuelta said he felt more at ease facing a bull!

Convair Men Earn Scout 'Silver Beaver'

Two Convair men last week received the "Silver Beaver" award, highest honor bestowed annually by the San Diego Council of the Boy Scouts of America.

James F. Langston (Astro Dept. 543-1) and Bert H. Wilbur (SD Dept. 91-0) were two of 11 men recognized for "noteworthy service of exceptional character to boyhood."

Dr. Lester Bond, a 50-year veteran in scouting, made the presentations. The San Diego BSA Council numbers some 8,500 adult leaders.


NIGHT FLIGHT—B-58 Hustler is awesome sight as it roars skyward with afterburners blazing.

ECHO I FOLLOWED BY B-58 TRACKER ON 59TH CIRCLE

A B-58 production astro-tracker was used recently to track Echo I successfully for nearly 12 minutes.

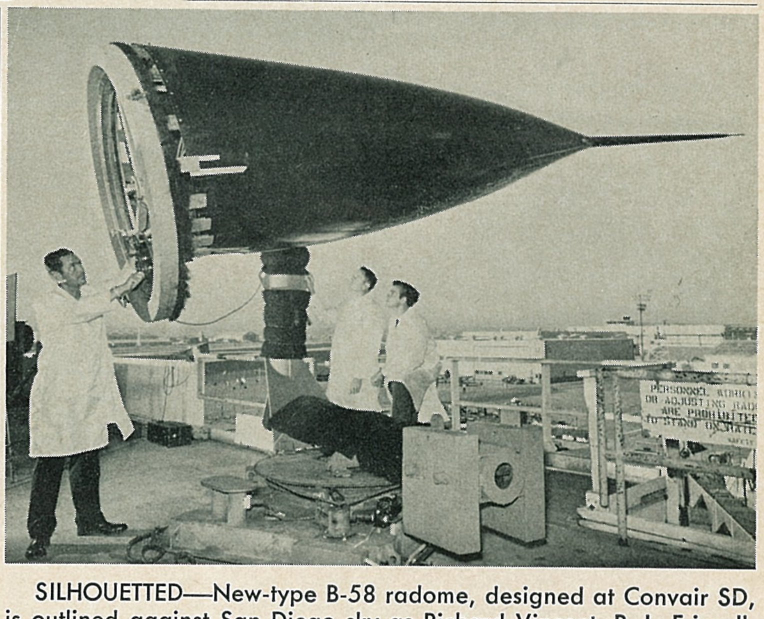
(Echo I is an orbiting gas-filled plastic balloon used to bounce communications signals back to earth.)

Engineers at Killsman Instrument Corp., manufacturers of the B-58 tracker, traced the satellite virtually from horizon to horizon in the Elmhurst, N.Y., laboratory.

"This feat was significant," said Convair FW senior design engineer John Dickey "though the B-58 astro-tracker is capable of tracking stars of both greater and lesser intensity."

The astro-tracker traced Echo I on its 59th pass around the earth.

Used primarily to provide heading information for primary navigation system, the B-58 tracker is also used to make celestial fixes, Dickey said.


SILHOUETTED—New-type B-58 radome, designed at Convair SD, is outlined against San Diego sky as Richard Vincent, R. L. Frizzell, Ronald H. Cieslewicz, all technicians in SD electronics radome group, prepare it for electrical checkouts on roof of Bldg. 54A at Plant 1.

Here's Guide to Safe Presents For Children, Toddlers and Up

Some guidelines for purchasing appropriate and safe Christmas gifts for children were issued last week by T. R. Smith, safety supervisor at Convair Pomona.

Up to two years—the "hand to mouth" age: sturdy rattles, brightly colored objects hung in view, rubber or washable squeak toys and stuffed dolls or animals, large, soft colored balls, blocks with rounded corners, push and pull toys with strings or rounded handles, nests of objects. AVOID: small toys which may be swallowed, flammable objects, toys with small removable parts, poisonous paint on any object, stuffed animals with glass or button eyes.

Two to three years—the "explorative" age: sand box with bucket, shovel and spoon, large peg boards, wooden animals, cars and wagons to push around, tip-proof kiddie cars and tricycles, large crayons, low rocking horse, small chair and table. AVOID: anything with sharp or rough edges which cut or scratch, objects with removable parts, poisonous paint or decorations, marbles, beads, coins, flammable toys.

Three to four years—the "let's pretend" age: small broom and carpet sweeper, toy telephone, dolls with simple wrap-around clothing, doll buggies and furniture, dishes, miniature garden tools, trucks and tractors, non-electrical trains, drum, costume clothing, building blocks. AVOID: toys which are too heavy for child's strength, poorly made objects which may come apart, break or splinter, sharp or cutting toys, flammable costumes, electrical toys.

Four to six years—beginning of the "creative" age: blackboards and dustless chalk, simple construction sets, paints and paint books, doll house and furniture, small sports equipment skipping rope, wash tub and board, paper doll sets and blunt end scissors, costumes, modeling clay. AVOID: shooting or target toys which will endanger eyes, ill-balanced mobile toys (tricycles, wagons, etc.) which may topple easily, poisonous paint sets, pinching or cutting objects.

Six to eight years—beginning of "dexterity" age: carpenter bench and well-constructed, lightweight tools, construction sets. roller skates, approved electrical toys, kites, equipment for playing store, bank, filling station, etc.. playground equipment, puzzles and games, sewing materials, dolls and doll equipment. AVOID: non-approved electrical toys, anything too large or complicated for child's ability and strength, sharp-edged tools, poorly-made skates, conductible kites, shooting toys.

Eight and older—specialization of tastes and skills: hobby materials, arts, crafts, photography, coin and stamp collections, puppet shows, musical instruments, gym and sports equipment, model and construction building sets, electric train with Underwriters' Laboratories approval, bicycle, science sets. AVOID: air rifles, chemistry sets, dart games, bows and arrows, dangerous tools and electrical toys unless used under parental supervision, motor scooters, non-approved electrical toys.



"Just what was in that chemistry set we got for Junior?"

B-58 Pushed as Best Step To Supersonic Transport

Unofficially, R. J. Patton is regarded as Convair FW's super "supersonic transport salesman."

The indefatigable senior propulsion engineer has mounted the speaker's platform coast-to-coast in recent months to champion Convair's proposed all-supersonic transport.

"The B-58 transport," he says, "offers the only profitable road for more knowledge towards commercial supersonic aircraft between 1960 and 1965."

Convair's proposal for the 1960-65 lag: a 52-passenger, transcontinental transport capable of Mach 2.4 cruising.

"Information afforded by the B-58 program is, of course, invaluable," Patton said.

"But it still will be necessary to acquire nearly 10,000 flight hours with a combination of B-58s and B-58 transports to establish criteria for supersonic commercial transports.

"Only the B-58A can conduct such tests during the next two years—and only a B-58 transport could carry them on through 1965," Patton said.

After that, the B-58 transport and Mach 3 B-70 could be used to gain further advanced flight data needed before a commercial transport can be put in the air.

According to Patton, National Aeronautics and Space Administration is tentatively scheduled to use a B-58 out of Edwards AFB next year in simulated commercial flights.

"Air traffic patterns, communications, takeoff and landing, handling characteristics and many other areas are due to be explored within a strictly commercial framework," Patton said.

"Almost 10 years of extensive development of B-58 for military purposes makes the Hustler the only logical vehicle for such a program."

Providing Convair could get a go-ahead on the B-58 transport by 1961, Patton said, about 2,500 hours of flight time could be logged in the "crucial years for supersonic transports" before 1965.

"Also, the B-58 transport would give this country added international prestige," he said.


SUPERSONIC—R. J. Patton, Convair FW engineer, inspects new 1/60th scale model of proposed B-58 supersonic transport.

C-V CONVAIR

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Vol. 13, No. 26 Wednesday, December 21, 1960

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SAN DIEGO, POMONA, ANTELOPE VALLEY, CALIF. ASTRONAUTICS OFF-SITE BASES, FORT WORTH, TEX.

Merry Christmas To All Convair

The fact that millions of people throughout the world will celebrate this Christmas in peace and freedom is, in no small measure, attributable to the hard work, imagination and loyalty of General Dynamics' employees.

The gift of freedom, which we give to ourselves and to our friends, must be earned anew every day. In this season, when peace seems particularly worthwhile, let us rededicate ourselves to our cause in the hope that the world may have many more Christmases in peace.

Frank Pace Jr.
Chairman of the Board
General Dynamics Corporation

* * *

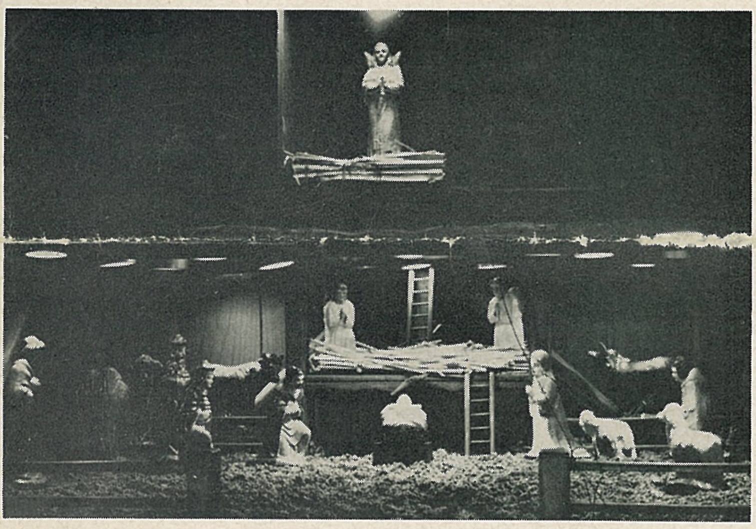
The true spirit of Christmas has never been more beautifully expressed than in the angelic pronouncement "Peace on earth to men of good will."

May you and your families experience all the blessed joys which peace with one's self and one's fellow men brings on this traditional day of rejoicing.

J. V. Naish
President of Convair



PRESENTATION — Convair, U.S. Air Force, and Space Technology Laboratories Inc. officially receive Collier Trophy Dec. 5 in Cabinet Room of White House. It was awarded for development of Atlas missile. From left, Louis G. Dunn, president, Space Technology Laboratories; Frank Pace Jr., board chairman of General Dynamics Corporation; President Eisenhower; Gen. Curtis LeMay, AF vice chief of staff. Attending for Astronautics were J. R. Dempsey, Astro manager, and K. J. Bossart, technical director.



SILENT NIGHT—This is look inside Christmas creche constructed by Convair SD's Marc Beresford (Dept. 188). Alabaster figures were hand molded and painted by Beresford. Time exposure was taken by SD photographer O. W. Rollins.

Xmas Creche Done in Miniature Radiates Spirit of Nativity

A Convair SD man has combined some of the old world with the new to construct a Christmas creche that radiates the classic simplicity of the Nativity tableau.

Obviously a painstaking labor of love, the miniature model measures only 21 inches from the sandy stable floor to the peak of the reed roof.

Inside (26 inches in width) are huddled all the members of the Christmas cast, each figure patiently molded in alabaster and painted with the delicate touch of a medieval craftsman.



MODEL MAKER—Marc Beresford displays Christmas creche located outside his El Cajon home.

Its maker is Marc Beresford (Dept. 188), who has placed the creche outside of his El Cajon home, on a platform underneath a cypress tree.

Not visible, but fastened tight in the top of the hayloft is a speaker from which Beresford softly broadcasts Christmas carols in the evening.

"The sound drifts down the driveway, attracting passers-by who see the light above the creche. Many stop to visit," says Beresford.

Their few steps up the driveway are well worth the effort.

Upon close inspection, visitors see the shielded bulbs set in the stable rafters illuminating each of the figures.

The infant Jesus (about the size of a little finger) sleeps peacefully under the watchful eyes of Mary and Joseph. The wise men are standing off to the side. Sheep, a camel and angels are near.

Beresford has had some of the miniature figures for years, but it is only this year that he has rigged up the lights and music which he regulates from a master control box in his workshop.

Beresford's work has been well appreciated in the past. Sears, Roebuck and Co. put his first creche on display in Boston in 1932.

The miniature maker, who is also CRA co-commissioner of the

(Continued on Page 2)

Pace Discusses National Goals On Coast Trip

Wide public attention to a report issued by the "President's Commission on National Goals" was urged this month by Frank Pace Jr., board chairman of General Dynamics Corporation, in press conferences and appearances on the West Coast.

Pace spoke before the Convair Pomona Management Club Dec. 8 and at a Kona Kai luncheon in San Diego the following day. He met the local press in both communities.

In February, President Eisenhower appointed a committee of prominent Americans to outline national objectives. Pace was vice chairman. Their report was issued late in November.

"Today, what happens in China, India, or any other spot in the world, is as important to us as our domestic problems were prior to World War II.

"So, it is important that we have well-informed citizens. They must understand the issues, so they can intelligently back their leaders. Our committee determined that whatever salvation would come to our country would come from its people," Pace said.

Public understanding is essential to help speed the decision-making processes of the American democracy, Pace added. This is necessary if America is to com-

(Continued on Page 2)

Jet 880s Helping Carry Xmas Passenger Load; First Delta Order Met

Convair jet 880s are helping carry the heavy holiday passenger load this week.

Fourteen 880s have thus far been delivered for commercial service, with Delta Air Lines receiving 10 and Northeast Airlines, four. The last of Delta's original order left the SD plant last week (Dec. 13) with a Delta crew flying it to Atlanta, Ga. Three additional 880s have been ordered by Delta for delivery in early spring. Besides their 880 jets, Delta numbers 26 of Convair's conventional propeller planes, 340s and 440s, in its passenger fleet.

Northeast now has received four of its six 880s. The first was delivered Nov. 30, the second on Dec. 4. The third, going out from San Diego Dec. 7, covered the 2,730-mile cross-country flight to Boston in 4 hours, 10 minutes with U. S. Johnson, SD production flight captain, at the controls. J. B. Van Houten was SD flight engineer. Northeast crew members were Capt. G. Steers and B. Labbee.

The fourth, and last Northeast plane to be delivered this month, was flown to Boston last Wednesday (Dec. 14) by Johnson and L. J. Rice, SD flight engineer. Capt. Pete Loranger of Northeast was co-pilot. Johnson was slated to remain at Boston until the end of the month to assist in crew training. He relieved W. D. Carrier, SD production flight captain, who delivered Northeast's first plane and has since returned to San Diego.

Final two Northeast planes are scheduled for delivery within the next few weeks.

Convair SD men now in the field as transport service representatives to support new commercial operations include Henry Morgan and W. F. Ashmore at New York, who are adding Northeast responsibilities to their Delta duties.

Other SD field service representatives are awaiting assignments to other locations as 880s add new cities to their ports of call.

Meanwhile, field operations at San Diego last week was readying still other 880s with expectation of deliveries to Trans World Airlines, but a firm delivery schedule was not available at presstime.



INTERVIEW—Frank Pace Jr., right, is interviewed by press at San Diego relative to report of "President's National Goals Commission" of which he was vice chairman. Pace urged wide public attention to report.

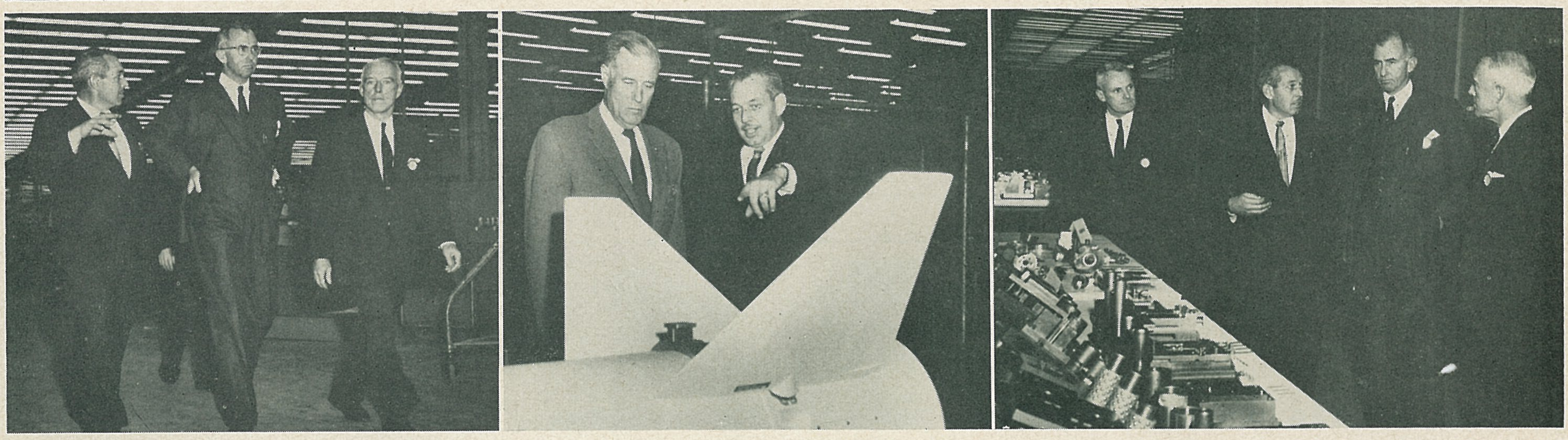
990 Structure Test Precedes First Flights

Latest version of Convair jet transports, the 990, moved into structural testing the first of this month as the program accelerates toward maiden flight of the world's fastest airliner.

Plane No 3 was tabbed as the proof-load article to be put through a several-month testing program at Convair SD structures test laboratory at the seaplane ramp. Static proof-load tests for structural integrity and operational checkouts will be observed by Federal Aviation Agency representatives for certification, said A. R. Vollmecke, assistant group engineer responsible for the structures testing effort.

Pacing plane No. 1 as it is readied for first flight next month, control systems of plane No. 3 will undergo intensive testing during the next few weeks. Control systems, including the aileron, elevator, and rudder, and subsystems—aileron trim, elevator auxiliary tab, and rudder trim—will be checked from cockpit controls to final connections.

(Continued on Page 2)



TOURING POMONA—Frank Pace Jr., General Dynamics Corporation board chairman, made careful inspection of Pomona plant during trip to West Coast this month. At left above he is shown with C. F. Horne, right, operating division manager, and Fred P. Morgan, operations manager. At right they view tooling exhibit with Patrick J. Sullivan, vice president public relations. In center Morgan explains Terrier missile to Fred G. Sherrill, member of General Dynamics board.

Structural Testing of Jet 990 Proceeds At Seaplane Ramp With FAA Observing

(Continued from Page 1)

Maximum pilot load on levers, pedals, and knobs will be simulated as systems are cycled to check all parts as loads are applied and released.

This section of the testing program will be completed before the first 990 takes to the air, said Vollmecke.

Following conclusion of systems checkout, the next couple of months will be spent proof loading the horizontal tail for bending and maximum torsion.

Complete structural tests will be shortened considerably for the 990 program, explained Vollmecke, since results of the 880 jet transport proof loading can be applied in many of the same areas on the 990.

Also at the structures test laboratory is the 990 vertical tail being tested separately on a fixture by both systems dynamics and structures lab test engineers. Structural tests on 990 landing gear and anti-shock body are slated to begin soon.

Log Book Entries

Service Emblems

SAN DIEGO

Service emblems due during the period Dec. 16 through Dec. 31.

Twenty-five-year: Dept. 31, Gael A. Dewey; Dept. 190, W. I. Miller, O. P. Stockton, B. R. Swarts; Dept. 218, T. L. Gilchrist; Dept. 401, D. E. Plympton.

Twenty-year: Dept. 6, J. P. Frick; Dept. 171, C. D. Mangels; Dept. 192, W. R. Kemper; Dept. 292, R. H. Moore.

Fifteen-year: Dept. 6, J. R. McLemore; Dept. 14, Cora M. Northen; Dept. 21, I. E. Herder; Dept. 31, M. L. McCrerey; Dept. 69, B. W. Weight; Dept. 137, W. G. Walker; Dept. 142, David Rodriguez; Dept. 145, R. R. Lamberson; Dept. 148, J. T. Fenwick; Dept. 188, M. L. Dodson; Dept. 215, P. R. Barley; Dept. 400, W. D. Anderson; Dept. 401, S. J. Jones, V. O. Williams.

Ten-year: Dept. 1-90, R. G. Monsees; Dept. 3-1, L. J. Shunneson; Dept. 6, Lawrence Everitt, W. E. Gibb, W. R. Hoover, R. E. Leland; Dept. 7, H. J. Ebert, La Mar Helton; Dept. 14, Johnny Randle, J. P. Verts; Dept. 15, Arden H. Bedle, E. P. Griesell, James Stanko, J. D. Womack.

Dept. 25, McKinley Goehring; Dept. 31, E. T. Elkins, Dora M. Manzano; Dept. 34, G. L. Ebner, Leon Larison; Dept. 44, E. M. Tierce; Dept. 95, William Minando; Dept. 101, B. H. Vintinner; Dept. 115, L. S. Allison; Dept. 129, Izetta M. Graham; Dept. 133, Trini V. Castro, Mary L. Henningson; Dept. 136, Elaine R. McCraw; Dept. 140, E. D. Ramirez.

Dept. 142, M. S. Coronado; Dept. 144, P. F. Anderson, H. M. Cruz; Dept. 146, Frank Sikora; Dept. 171, Anthony Galecki, J. T. Hernandez; Dept. 192, Fred Dehmel, G. H. Maier; Dept. 197, Ruth R. Taddeo; Dept. 215, A. O. Hovden; Dept. 216, Beulah S. Fahlen.

Dept. 217, Mildred S. Halsted, Loretta B. Robertson; Dept. 218, Dorothy H. Mahn, Evelyn J. Steen; Dept. 230, Jacqueline T. Frazer; Dept. 231, B. H. Wilson; Dept. 249, Helen B. Phillips; Dept. 271, E. E. Pizano, R. J. Vasquez, Frank Williams; Dept. 280, Lucille S. Haskins; Dept. 288, Arlene S. Gregory; Dept. 292, P. G. Minor, Mildred T. Schrick, F. H. Tschirgi; Dept. 400, J. S. Glasier, C. R. Hendriksen, C. P. Olsen, John Zupon; Dept. 401, J. H. Danner, J. G. Elliff.

PALMDALE

Ten-year: Dept. 324-2, H. G. Guenther.

Promotions

SAN DIEGO

Promotions to or within supervision effective Dec. 5.

Dept. 4-0, Material Office: To material services supervisor, J. D. Fink.

Dept. 6-35, Engineering: To systems dynamics group engineer, C. D. Pengelley.

Dept. 7, Electronics: To M/C supervisor, P. R. Carlton Jr.; to asst. foreman, C. L. Hodges; to M//C asst. foreman, K. E. McKelvey; to asst. electronics group engineer, M. M. Reeder; to asst. group engineer, K. W. Strowig.

Dept. 34-1, Material Procurement: To purchasing agent, I. S. Leon Jr.

Dept. 117, Tubing & Cable: To asst. foreman, F. G. Crosthwaite.

Dept. 190-0, Applied Manufacturing Research & Process Development: To chief of operating controls & standards, J. B. Henn.

HOLLOMAN AFB

Dept. 313-0, Model 8 Flight Test Operations: To chief of flight test inspection-HAFB, R. L. Bowers.

Deaths

SAN DIEGO

KIRNAN—Beatrice, Dept. 216. Died Dec. 3 from traffic injuries. No immediate survivors.

Jan. 3 Enrollment Deadline at State

Convair people in the San Diego area planning to enroll in evening classes at San Diego State College next semester are reminded that admission deadline is Jan. 3 for undergraduates and Jan. 13 for graduates.

Enrollment may be made now at the college's Admissions Office, either in person, by written application, or by phone.

Prospective students from Convair SD may get in-plant assistance from Mark Saunders, SD educational services, ext. 1827.

Personals

SAN DIEGO

I would like to thank my Convair friends in Depts. 400, 401-4 and 401-7, for their kind acts of sympathy at the death of my wife.

Howard A. Daw and family, Dept. 401-4.

* * *

My deepest appreciation to Convair friends for their many expressions of sympathy and donation to the Heart Association in memory of my mother, Rose Dangler.

Edward Dangler, Dept. 8-4.

* * *

I wish to express sincere thanks and appreciation to my friends at Convair for the flowers and cards sent to me during my hospitalization.

John Gilbert, Dept. 400.

* * *

I am most grateful for the thoughtfulness of Convair friends during my stay at Mercy Hospital.

Edna Lee, Dept. 231.

Retirements

SAN DIEGO

BRINTON—James R., Dept. 14-1. Seniority date Nov. 7, 1951, retirement effective Nov. 29, 1960.

PETIT—Robert C., Dept. 401-5. Seniority date April 29, 1954, retirement effective March 8, 1960.

SLONINA—Stanley W., Dept. 401-0. Seniority date Sept. 5, 1951, retirement effective July 22, 1960.

★ Convairiety ★

Founded Sept. 1, 1948. Published in six editions (Fort Worth-Daingerfield, San Diego-Palmdale-Holloman, Astronautics, Astronautics Off-Site, Pomona and the Mail) by Convair Industrial Relations, General Offices, San Diego, Calif. Logan Jenkins, editor-in-chief.

Approximate current total circulation, over 65,000. News items and letters to the editor are solicited, but no advertising can be accepted.

SD Editorial Offices, Building 32, Plant 1, ext. 1071. Staff: Grayce Fath, Helen Pemberton, Fred Bettinger.

Astronautics Editorial Offices, Bldg. 8, Astro site, ext. 3322. Staff: Bryan Weickersheimmer, news editor; Willard Harwood.

FW Editorial Offices, Col. 72, Administration Bldg., ext. 2961. Mailing address: Convairiety, Convair, Fort Worth, Texas. Telephone PErshing 8-7311. Mail zone 0-50. Staff: Dave Lewis, news editor; Louise Sutton, Mary Beck.

Pomona Editorial Offices, Room 106-D, Bldg. 1, ext. 6226/5279, mail zone 3-3. Staff: James Combs Jr., news editor; Dorothy Keller.

Palmdale news representative, CRA office, Room 36, Bldg. 301B, ext. 331, Palmdale facility. Holloman: O. J. Ancel, industrial relations, ext. 20, Holloman AFB.

Report Published In Paperback Form

A paperback volume containing the report of the "President's Commission on National Goals" along with material which served as the research basis for the report is now available at bookstores for $1. Plans are under way for their sale through employee services at reduced price.

Published Dec. 12 by Prentice-Hall under the title "Goals for Americans," the book contains 16 chapters written by American leaders.

Field Service Reps. Return From Abroad

Returning this month to Convair San Diego from foreign assignment with Convair planes were five field service representatives in SD transport service.

Phil Smith, John Nowak, William Lewis, and John Crenshaw are back form Taipei, Formosa, where they spent two months training ground crews in anticipation of the first Convair 880-M to go to Civil Air Transport.

W. M. Anthony reported back to Convair SD Dec. 9 from five weeks in Santiago, Chile, where he conducted maintenance training for ground crews of the state-owned Linea Aerena Nacional-Chile, which is putting Convair 340s into service. The South American line, which flies almost entirely within the confines of Chile, has purchased three Convair conventional transports from Allegheny Airlines, Washington, D. C.

According to Anthony, one 340 is now in service with the other two to be ready to fly over regular air routes by the end of this month. The president of Chile, also president of the airline, made the first 340 flight as a personal tour over earthquake-ravished areas in the southern part of the country. Anthony said that his work was made easy by the quick comprehension of the crews, who covered in three weeks material which usually takes at least a month to absorb. Most of the trainees speak English, a required subject in the Chilean schools.

Ed Griffin was the last of Convair SD field service representatives to return from duty abroad with Convair 440s. He came back to Convair SD this summer from Sao Paulo, Brazil, where he had been stationed as resident representative with REAL for over three years.

Still in the field with 440s in the United States are three field service representatives based at Patuxent River, Md., with the Navy; Oklahoma City, Okla., with the Federal Aviation Agency; and at Detroit, Mich., with General Motors Co.

Also returning recently to Convair SD for 880 and 990 training was Dave Weitzman who has been based at Bolling AFB, Washington, D. C., the last four years with the 1299th Air Transport Squadron flying C-131-Ds, Convair-converted 340s.

Pace Gives Current Status Of General Dynamics Activities

(Continued from Page 1)

pete with the opposing dictatorships which can make quick, incisive decisions.

For excerpts from the commission's report, see page 5.

Speaking before the Pomona Management Club, Pace complimented the Pomona facility and outlined developments at other Convair plants and other General Dynamics divisions.

"At Convair San Diego, the F-106 Air Force fighter program is being phased out. Some difficulty has been experienced in the 880-990 (commercial jet transports) programs — not technical difficulties—but we are finding solutions. We have taken a brave step in writing off our losses, and these programs should do well in the future.

"The B-58 program (Air Force bomber) at Convair Fort Worth has had a long and torturous way. But I have said from the first and I still say that this program has a good future," Pace said.

"The production of submarines at Electric Boat is a fascinating and profitable operation. The Polaris submarine USS Ethan Allen was produeed in only 14 months, the shortest time for a submarine since World War II."

Canadair, Ltd., is "doing well" and is currently producing a commercial all-cargo plane, and F-104s for the Royal Canadian Air Force. Canadair is also concluding production of the Argus, an anti-submarine warfare plane, for the Canadian government.

"Stromberg-Carlson has had two difficult years, even though it has almost doubled its business," Pace said. "But it is now 'over the hump' and on the road forward, especially in the field of equipment for independent telephone companies.

"Liquid Carbonic is a steady earner in its field, and is the only division of General Dynamics Corporation with extensive interests throughout South America."

Pace also predicted a great future for General Atomic, which was recently awarded, with General Electric, a contract to build the largest atomic reactor ever attempted to date.

"We are all aware of the huge power market of the future, and I believe this market will be dominated during the latter part of the 20th century by atomic power. We are now recognized as one of the two leaders in this field in this country, and I believe we will continue to lead." he said.

Pace described Material Service Corporation as "a most successful and prosperous operation," and described the corporation's recent merger with General Dynamics Corporation as "the only deal I have ever personally negotiated in which the results have proved greater than promised.

"In General Dynamics Corporation we have as large a quota of scientific personnel as any company in the country, and I am sure that these scientists will produce the ideas to take us forward," Pace said, speaking of the Corporation's future.

Radio Club Slates Meeting Tonight

Members of Convair SD Radio Club will meet tonight (Dec. 21) at their Harbor Drive Headquarters at 7:30 p.m., according to J. T. Lack, club spokesman.

Lack also said that the ham group has replaced the Heathkit transmitter for the novice station with an Eico 720.

$1,000 Donated For SD Needy

A contribution of $1,000 by Convair SD Employees' Con-Trib-Club will help the Salvation Army provide Christmas baskets to needy families in the San Diego area again this holiday season.

For the third year, Con-Trib-Club Committee approved the additional contribution at its December meeting.

Baskets, grocery orders, and food will be given to at least 3,500 families by the Salvation Army. Depending upon family size, each basket contains between $15 and $20 of food for a complete Christmas dinner—turkey or ham, staple items, canned vegetables, butter, milk, ingredients for pies, fruit, and candy.

Where there are children, toys, clothing, and gift certificates are included.

Car Club Schedules Rally in February

Convair SD Sports Car Club is planning its fourth annual "Seat of the Pants" rally for Feb. 12.

The event will be a test of precision driving. Speedometers will be covered and contestants will have to estimate their speed on different laps of the route.

At the last major San Diego event of the year, the Cor-Ryan Rally, a' Convair SD team, Peter Aperlo and Tommy Jackson (both Dept. 6) drove into first place.

New Year's Weekend Jeep Jaunt Slated

San Diego Ridgerunners and Convair Jeep Club have slated a jeep jaunt over the New Year's weekend (Dec. 30, 31 and Jan. 1).

Jeepers will assemble at Ocotillo on Hwy. 78 at about 9 a.m., Friday morning. Travelers are asked to bring a two-day supply of food and gas.

Christmas Creche Made in Miniature

(Continued from Page 1)

Riding Club, years ago sold tiny reproductions of Colonial furniture to John D. Rockefeller who displayed them in his office.

But be that as it may. Says Beresford: "I get the most satisfaction when I see the eyes of the little children who peep inside the Christmas creche."

Is It News? Call Convairiety







ACTIVITY IN BOSTON—Center above, crowd greets first jet 880 arriving at Northeast Airlines headquarters at Boston. At left, David Stretch, Northeast board chairman, congratulates Capt. Eugene Rooney, chief pilot. From left, J. G. Maloney, Convair assistant manager commercial sales; Willson Offutt III, Northeast assistant vice president and general sales manager; Thomas Grace, Northeast vice president; Rooney; James Austin, Northeast president; Stretch; E. O. Schroeder, Northeast vice president, technical services; R. C. Loomis, Convair SD manager. In right hand photo, grouped around Austin, are Stretch, R. L. Knight, General Dynamics Corporation vice president and treasurer; Maloney; Loomis; F. S. Chambers, chief of Convair SD commercial contracts.

Unique New Inspection System Ferrets Out Tiny Hidden Flaws

Convair FW is proving out a unique inspection system which will pinpoint defective parts with speed and super-precision.

It's being done with an automatic ultra-sonic inspection system—the only such system now in operation, according to process engineer B. J. Lefebvre.

It consists of a 14,000-gallon "pool"—32 feet long, 12 feet wide and 5½ feet deep, into which parts are immersed for inspection.

Doing the inspecting—and this is the truly unique part—is a Curtiss-Wright built scanning head capable of tracing flat parts or a 60-degree contour with a 20-inch radius.

"The scanner is about eight inches in diameter and swivels in any direction," Lefebvre said. "Four sets of tiny combination electric lights and photo-electric cells surround the scanner.

"It glides over the part at 36 inches per second. As the electric light illuminates the part surface, the photo-electric cell picks up the reflection and senses the surface. A 'picture' of the part is produced through information sent through the scanner's transducer to the recorder.

"When the photo-electric light goes off the part at the edge, the scanner automatically moves over and reverses its field."

A detailed, running view of what the scanner "sees" is traced entirely on the machine's recorder.

"Thus, as defects in adhesives or bonding—commonly called voids—show up in the record, the operator can tell instantly where and what the defect is," Lefebvre said.

Recently the system was used to inspect a B-58 part in 2 minutes, 45 seconds flat—an improvement over the 1½ hours required by another method.

Safety Team Pays FW Visit

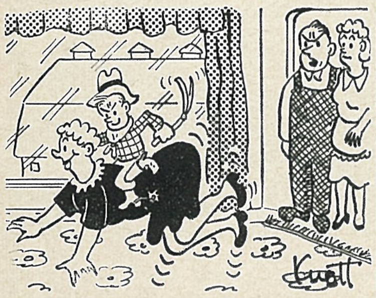
A top USAF safety team, headed by Maj. Gen. Perry B. Griffith, Deputy Inspector General for Safety, Air Force Headquarters, recently toured the FW plant.

The team discussed various aspects of aircraft safety before 150 key FW personnel in management, engineering, production and quality control.

In turn, the team was briefed by Frank W. Davis, Convair vice president and FW manager, on the company's current and advanced programs. Davis, B. G. Reed, Convair FW assistant manager-operations, and W. F. (Bill) Funk, FW design safety specialist, were hosts for a plantwide tour.

General Griffith termed both the B-58 and FW production facilities "amazing." The general, an expert on nuclear weapons and tactical flying, is responsible for the worldwide direction of USAF's programs of ground, flight, missile and nuclear safety, with headquarters at Norton AFB, San Bernardino, Calif.

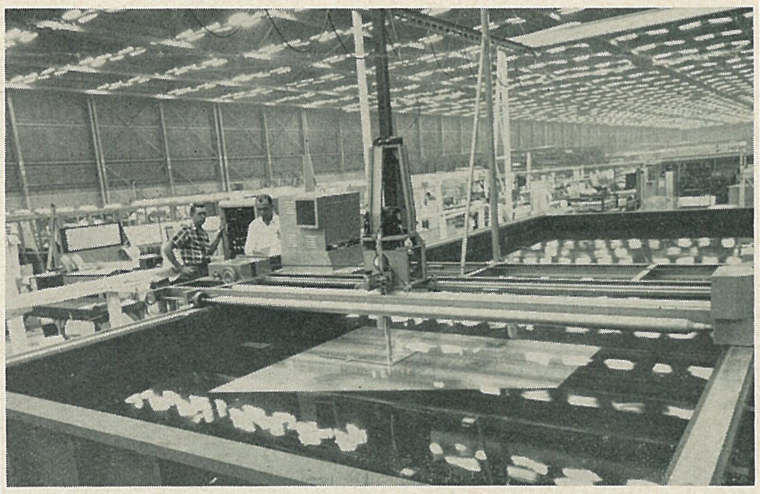
Accompanying the general were Col. Herman F. Smith, who discussed safety education; Col. K. E. Pletcher, USAF ejection record; Col. K. S. Wilson, maintenance, material and design as aircraft accident cause factors; Lt. Col. B. E. Robertson, nuclear safety, and Maj. A. Cavello, ground safety.



"Your mother's going to spoil him for riding real horses."



SCANNER — Lefebvre takes close look at scanning head which glides over part automatically, sending "results" to control machine.



INSPECTION—B. J. Lefebvre, process engineer, and L. R. Kight, non-destructive inspection specialist, monitor results as B-58 part gets double-check in new ultra-sonic inspection pool.

Upturn in Number of Engineers Becoming Managers Forecast

Engineers are an "excellent source of management material," especially in technological industries such as aircraft, ship-building, and electronics manufacturing.

So said Adm. Lawrence B. Richardson, senior vice president-engineering, General Dynamics Corporation, in a speech on "Engineers and Management" made before the Society of Automotive Engineers at Ridglea Country Club Dec. 8.

Richardson added, however, that engineers with the "inclination and aptitude" for management must be carefully trained and tested to prove their real management ability.

"There are indications," he said, "that the proportion of engineers who become managers will increase, if the engineers who are ambitious are given opportunities and will strive . . . to develop themselves."

He suggested that engineers learn to express themselves well, both "in writing and orally" . . . to be concise and learn to use language easily understood by non-technical people.

"Engineers should also remember that communication involves listening as well as talking," Richardson said.

The General Dynamics executive emphasized that engineers should study other phases of business such as budgeting, inventory control and accounting.

"It is not necessary to become expert in these fields," he pointed out, "but reading, discussion, and investigation are sure to be helpful."

Richardson thought management should take an active step in systematically training the professional engineer for alternative career paths—specialist or managerial.

FW 'Engine Manager' Appointed by Davis

T. R. Boley, customer acceptance supervisor, has been appointed "engine manager" at Convair FW.

Boley will assume this task in addition to his other duties, Frank W. Davis, Convair FW manager, said.

As engine manager, Boley will administer Convair's engine reporting system with Oklahoma City Air Materiel Area.

$10 Million in Spares Ordered by Jet Owners

Convair SD jet transport customers have placed spare parts orders totaling more than $10 million—roughly equivalent to two additional airplanes.

The orders are the result of provisioning conferences which have been conducted by Convair SD since January of 1959.

Purpose of the conferences is to give the airlines an opportunity to decide which spare parts they will require to support their planes. As a general rule, provisioning sessions are held a year before the airplane (or airplanes) is scheduled for delivery.

"We are endeavoring to give our customers every aid and support possible so that they will be able to make the best decisions on parts procurement applicable to their anticipated needs," said Harold Wolfe, general supervisor of service parts.

Last week, four customers, Federal Aviation Agency, Japan Air Lines, Alaska Airlines and Avensa Airlines, finished provisioning for their Convair jets.

Representatives in attendance were A. J. Lanz (Avensa); R. W. Foss and A. W. Anderson (Alaska); T. F. DeWitte, Miss Ida Smith, H. J. Barnett (FAA); and A. Tsuda (Japan).

Other airlines which have previously completed their provisioning include Delta, TWA, Northeast, Swissair, American. Still to place spare parts orders is REAL.

Actually, establishing which spare parts will be required to support the airplane is no small task: the airlines must take their pick of literally thousands of individual parts.

(There are approximately 22,000 separate parts numbers listed for the three Convair jet transport versions—the 880, 880-M, and 990.)

And, because each airline has a different type of operating problem, different maintenance methods, and varied operating conditions, their spares requirements vary considerably.

One of the chief conference techniques to make the parts selection easier is the use of micro-film integrated data (MID) cards.

Miniatures of every blueprint prepared for each jet transport are flashed on large 8x10-ft. screens. Even portions of the blueprints can be emphasized on a "small scanner."

The card files are brought up to date as design changes are incorporated on the blueprint vellums.

Mfg. Research Chief Named

Dr. E. L. Armi joined Convair San Diego the first part of this month as chief of applied manufacturing research, Conrad Kunze, SD assistant manager-operations, announced.

He will report directly to R. M. Hatcher, SD manager of applied manufacturing research, operating controls, and methods, said Kunze.

Under Dr. Armi in new assignments are W. E. Wise, group engineer of ceramics, plastics, and adhesives; C. A. Ives, group engineer in charge of fabrication development; and A. P. Langlois, supervisor of the pilot shop.

A native of Munich, Germany, Dr. Armi attended the Universities of Geneva and Paris. After coming to the United States, he attended the California Institute of Technology, earning his master's degree in physics in 1939, and his doctor's degree in 1941.

He comes to Convair San Diego from Hughes Aircraft Co. where he was senior staff consultant during the last year. He previously had been with Autonetics Division of North American Aviation, Inc., as research staff chief; and several years at Hughes as senior staff physicist.

Dr. Armi is located at Convair SD in Bldg. 1, Room 39, ext. 1615.



PARTS PARLEY—Convair SD jet transport customers are continuing to provision spare parts for their planes on order. Thus far airlines have placed parts orders totaling more than $10 million. Recent representatives at Convair SD were (from left): A. W. Anderson (Alaska Airlines), A. Tsuda (Japan Air Lines) and R. W. Foss (also Alaska).

Careful Squeeze

Key Is Trigger Finger, Says Top Marksman

Accuracy with a hand gun, whether standing up or on your head, is a cinch—IF you know how to squeeze the trigger.

"That's 90 per cent of it," says I. B. Hale, marksman extraordinary and FW's chief of industrial security, who has been an international pistol shooting champion and an FBI instructor.

Prior to joining Convair FW in 1951 as supervisor of investigations (he was named chief the following year) Hale served the FBI for 11 years at various posts.

Hale's marksmanship demonstration, which he has made many times in the interests of weapon safety, includes a highly spectacular shot. He turns his back on an ax blade 45 feet away. Burning on each side of the blade are two tiny candles. Sighting backwards with the help of reflection from a finger ring, Hale fires. The bullet, cut in two by the ax blade, extinguishes both candles at once.

"It's all a problem in holding steady and squeezing carefully so the gun is on target when it fires."

Hale's three key safety rules:

1. Know for sure that your gun is in operating condition, and above all, whether or not it's loaded. No gun is completely checked in determining whether it's unloaded or not unless the magazine has been thoroughly examined.

2. Keep the muzzle pointed in such a direction at all times that if the gun accidentally fired, nobody would be hit.

3. Keep your finger off the trigger till the gun is extended toward the target and the sights are lined up. Then, and only then, put your finger on the trigger. Says Hale:

"This is a frequent violation even among experts who handle guns. Their first act is to wrap their finger around the trigger. That's when accidents happen.

"Guns kill more people than game every year."



TOP MARKSMAN—This is I. B. Hale, FW's chief of industrial security. He sights through ring before splitting bullet on ax blade 45 feet away.

B-58 Reliability Under Scrutiny At Conference

Reliability of the B-58 Hustler was among subjects often mentioned at the quarterly General Dynamics Reliability Panel Conference at Fort Worth.

Some 32 representatives from various General Dynamics organizations attended.

"Reliability is uppermost in our minds at Convair FW," FW Manager Frank W. Davis said in greeting conferees, "since we're now delivering inventory airplanes."

Davis reminded the panel that a B-58 Hustler failed to win the 1960 SAC competition because of two isolated, minor failures.

"Still," he said, "the Hustler managed to score the best radar bomb scoring competition its first year out."

G. H. Craig, reliability projects administrator, presented "Monitoring of B-58 Reliability Program."

"Development and Utilization of the B-58 Reliability Program" was the topic of R. D. Chase, senior aerophysics group engineer. He outlined the high goals of reliability set for production Hustlers.

W. F. Caffrey, reliability project coordinator, spoke on "Effects of Maintenance on Reliability."

Coordinating the meeting were J. Y. McClure, manager of quality control, and N. H. Simpson, manager of reliability.

Guest speaker Dec. 8 was Navy Capt. W. J. Corcoran, stationed at Lockheed Missile Division, who spoke on "How to Get Reliability in Missile Programs."

Others attending were: A. L. Lambert, R. F. Jacque, K. Pelham, J. G. Hansen, Clayton Holden, William Karas, E. I. Roberts, E. S. Winlund, Stromberg-Carlson; Harry McKeown, Allan Oxley, Canadair.

R. A. Lennon, A. C. McMaster, T. A. Vogel, Convair Pomona; G. Covington, P. Benner, R. Cary, Convair SD; W. K. Ebel, General Dynamics, New York.

Douglas Larsen, General Dynamics, Washington; J. R. Z. Reynolds, J. W. Best Jr., Electric Boat; L. S. Franklin, James L. Minas, Convair Astronautics; G. E. Owen, Convair FW; K. E. Hassler, K. E. Cochran, Battelle Memorial Institute.



GREETINGS—Manager Frank W. Davis welcomes conferees to quarterly General Dynamics Reliability Panel Conference.

Korea and German Orphans Find Homes With Convair FW Families

Leslie Hardin is almost 2, with black hair and eyes and a sweet, shy smile.

Caroline and Gary Robert Rice are 10 months old, blond-haired and blue-eyed.

Because of the three, Christmas 1960 will be a special one for two Convair FW families.

Leslie was a Korean war orphan until she arrived to the welcoming arms of her new parents, Mr. and Mrs. E. C. Hardin, 4725 Dilworth, last April.

Caroline and Gary Robert, twins, were German orphans in an Austrian orphanage until early this month, when they took over the Monroe C. Rice home at 621 Grainger.

Rice is a metal fitter assembler in Dept. 32. Hardin works in Dept. 64, nuclear area.

The Hardins waited months for Leslie, who was being cared for in a Church of Christ orphanage in Seoul. The Rice twins found their American home through efforts of Catholic Charities, working with the national refugee committee of the National Catholic Welfare Conference.

Leslie arrived in the U. S. at Portland, Ore., and Mrs. Hardin flew there to bring her home.

The Hardins have been a Convair family 10 years. They have two sons, Shelby, 8, and Lane, 3.

The Rice babies arrived in Dallas via American Airlines, in the care of stewardesses who had looked after them since their arrival in New York.

Mrs. Rice met her husband in her native Orleans, France, when Rice was serving with the 847th Airborne Engineers during World War II. He returned to France in 1947 as a civilian to marry her. The couple moved to Fort Worth from their home near Clarksville in 1950.

Society Honors Rosenbaum For Rocket Work

Mortimer Rosenbaum, Astronautics chief engineer, this month was named a fellow in the American Rocket Society at that group's annual meeting in Washington, D. C.

This honor, bestowed by election of the ARS board of directors, is given to worthy persons engaged in or associated with rocket and jet propulsion in recognition for broad services rendered in the field.

Rosenbaum's citation read "in recognition of his outstanding contributions to the rocket and astronautics field."

K. J. Bossart, Astro's technical director, is the only other Astronautics employee to receive this recognition.

Dynapak Facility Moving From Pomona To New Quarters at San Diego Ramp

Convair's Dynapak facility, located at Pomona, Calif., since its formation four years ago, is being moved to San Diego this month.

By the middle of January all Dynapak personnel and equipment will be located in newly-renovated quarters of Convair in the San Diego area, announced Ralph G. Monsees, assistant to the vice president and general counsel of Convair. Monsees heads Dynapak as manager of Convair special projects, which also includes Convair Instruments and Project X, both located in San Diego.

Production of Dynapak's metal working machines and advanced mechanical systems will be concentrated in the large (18,000 sq. ft.) hangar structure, known as Bldg. 37, at the seaplane ramp. Engineering, sales, and administrative offices will occupy the Convair building at Midway and Fordham Sts., recently vacated by SD service parts people.

According to Monsees, Convair's special projects will take over the east ramp area stretching north from the main entrance 800 feet along Harbor Drive. Only exception will be the office area of SD thermodynamics lab which will be maintained on the west side of the hangar building.

"The move is being made to give Dynapak the added advantage of existing facilities at Convair San Diego," explained Monsees. "Convair SD's up-to-date test equipment and refined data computing systems will expedite Dynapak's research and development on new high-rate energy metal forming devices as well as its work in shock simulation and dynamic loading fields to keep pace with the advanced requirements of our customers."

Dynapak's revolutionary metal working machines are in use by 25 large companies and research organizations in this country, including United States Steel Co., General Electric Co., Westinghouse Electric Corp., Atomic Energy Commission, and National Aeronautics and Space Administration. Inquiries have been received from every country in the world, said Monsees, who prophesies that standard Dynapak metal forming equipment will be produced for sale abroad within the next year.

Dynapak's advanced mechanical system activities include the design, manufacture, and sale of shock testing, dynamic loading equipment, and mechanical simulators. Each system is essentially custom-designed to meet specific requirements of the individual customer. Dynapak test equipment is now in service with such organizations as ordnance laboratories, aerophysics development groups, missile plants, and radiation laboratories. Dynapak's Hyge actuating mechanism was the first accurate and safe instrument developed for aircraft and missile shock testing.

The project was formed in December, 1956, with a staff of two engineers following several years of research by Convair metallurgists and engineers in high-velocity forming. It first was located in a Claremont office building moving in 1957 to a South Pomona building. Entire staff, including production personnel, engineers, and administrators, now numbers 60.

"The growth and expansion of Dynapak activities is our primary purpose," stressed Monsees. "We have every confidence that the facility will become a significant part of Convair."

Convair Redeye Demonstrated

Convair Pomona's Redeye missile system was demonstrated to the press Dec. 5 by Brig. Gen. Charles S. D'Orsa, commanding general of the Army's Combat Development Experimentation Center, Ft. Ord, Calif.

The press conference was conducted at the Statler Hilton hotel in Hollywood. Convair Pomona's Lowell Hinderaker, an engineer assigned to the Redeye project, participated.

While Lt. Col. Ray Harvey, a member of Gen. D'Orsa's staff, held a lighted cigarette 30 feet away, Hinderaker swung the weapon about. Every time the "eye" of the weapon passed the pinpoint location of the cigarette, the weapon let out a loud "beep."

Gen. D'Orsa explained that all the soldier in the field had to do is aim on an attacking plane until the Redeye beeps, then pull the trigger. He explained that in combat a soldier can swing the 20-lb. bazooka-like tube to his shoulder and send off an infrared "homing" rocket to blast up the tailpipe of any low-flying enemy jet, or to "lock on" to the engine heat of tactical prop-driven aircraft. Redeye can also be used against short-range tactical missiles as well as aircraft, the general said.

The Redeye, which was designed to give the front-line soldier better protection, is in the final stages of production at Convair Pomona, Gen. D'Orsa added.

Industry Engineers Tour Convair FW

Convair FW industrial engineers played host Dec. 7 to 78 members of the Dallas-Fort Worth Chapter, American Institute of Industrial Engineering.

Following a dinner in the executive dining room, guests toured the plant with W. E. Emish, manager of industrial engineering, and other members of the department.



NEW ARRIVALS—Mr. and Mrs. Monroe C. Rice are happy parents of twins born in Germany, while Mr. and Mrs. E. C. Hardin greet new daughter just arrived from Korea.

Committee Identifies National Goals of U.S.

(To "identify the great issues of our generation," the "President's Commission on National Goals" was established in February, headed by Frank Pace Jr., board chairman of General Dynamics Corporation, and Dr. Henry Wriston, former president of Brown University. Among members were many prominent Americans. The committee's complete report is being published in a $1 paperback book and Pace, in a nationwide "Meet the Press" TV appearance and in other press conferences, has urged national attention. Following are excerpts from the report.)

INTRODUCTION

In the 1960s every American is summoned to extraordinary personal responsibility, sustained effort, and sacrifice. For the nation is in grave danger, threatened by the rulers of one-third of mankind, for whom the state is everything, the individual significant only as he serves the state. These rulers seek the "peace" of a Communist-oriented world, in which freedom is suppressed . . .

* * *

Meanwhile, weapons of cataclysmic power have come into existence. A major nuclear conflict would be a world catastrophe . . .

* * *

Since 1946, foreign rule has ended for more than one billion people in Asia and Africa. Much of their yearning for independence, for respect and for abundance has been inspired by Western and especially American example. Nevertheless, historic resentments, inadequate economies, inexperience in self-government and excessive expectations offer fertile ground for Communist persuasion and conquest . . .

* * *

To preserve and enlarge our own liberties, to meet a deadly menace and to extend the area of freedom throughout the world: these are high and difficult goals . . .

At the same time, the United States cannot attain its goals alone, nor by offering the free world grudging alms or condescending leadership. We must lead, but in a spirit of genuine partnership . . .

GOALS AT HOME

The notion that ideas and individuals must be rejected because they are controversial denies the essence of our tradition. Schools . . . have a particular responsibility to ensure freedom of expression by students, faculty and administrators alike . . . There are subtle pressures toward conformity in the economic, social and political world. They must be resisted . . .

* * *

Vestiges of religious prejudices, handicaps to women and most important, discrimination on the basis of race must be recognized as morally wrong, economically wasteful, and in many respects dangerous . . .

* * *

The economic system must be compatible with the political system . . . Too great concentrations of power in corporations, unions or other organizations can lead to abuses . . . Government participation in the economy should be limited to those instances where it is essential to the national interest . . . Conferences among management, union leaders and representatives of the public can contribute to mutual understanding . . .

* * *

Public policies, particularly an overhaul of the tax system, including depreciation allowances, should seek to improve the climate for new investment . . .

* * *

Technological change should be promoted and encouraged . . . Education on a large scale is provided by many industrial firms. Such activities, combined with advance planning, can minimize unemployment . . . due to rapid technological change . . .

* * *

We must continue to adapt the management and organization of the Department of Defense to changing military needs . . . Through bold and tough-minded management we should reduce lead-time in bringing new weapons to operational use. Civilian and military leaders must make and make stick the difficult inter-service decisions . . .

GOALS ABROAD

Whether nations will prefer freedom to totalitarianism is a vital issue. The free nations must exert themselves to the utmost to influence that choice . . . They must seek to prevent the denial of choice by Communist expansion . . .

* * *

The healthiest world economy is attained when trade is at its freest. This should be our goal . . .

* * *

The power and opportunities of the Sino-Soviet nations are such that it will be a major task to prevent their expansion . . . We must be ready to make the sacrifices necessary to meet the rising costs . . .

* * *

A key goal in the pursuit of a vigorous and effective United States foreign policy is the preservation and strengthening of the United Nations . . . This requires constant strengthening of world law . . . (and) the further development of the International Court of Justice . . .

CONCLUDING WORD

Free men have always known the necessity for responsibility. A basic goal for each American is to achieve a sense of responsibility as broad as his worldwide concerns and as compelling as the dangers and opportunities he confronts . . .

★ ★ ★

In a supplementary statement, Frank Pace Jr. emphasized three recommendations involving national defense: encouragement of new ideas; early selection of a weapon system; and reduction of time-lag between idea and production.

"Our greatest strength—is the free flow and interchange of new ideas. It is our best means of staying ahead of the Communists . . . The lessons of the past are important, but clinging to the past is impossible . . ."

"Incisive selection" of a new weapons system should be made "at the earliest practicable time . . . Even recognizing that mistakes will inevitably be made, this still represents a lesser danger than that of pursuing too many programs inconclusively . . . Finally I want to emphasize the all-important problem of the time-lag between the conception of a great idea and its production as a weapons system . . . Obsolescence through delay is the most costly single factor both in terms of dollars and national defense . . ."

Pomona Librarian's Son Directs Catch Of Pacific Capsule

Lt. Col. Horace G. Nichols, USAF, son of Mrs. Lillian Nichols, BuWepsRep technical librarian at Pomona, is the commanding officer of the airborne early warning and control task force that directed the intercept of the Discoverer XVII capsule in the Pacific area last month.

Flying in RC-121D Super Constellation "flying radar stations," officers and men under Lt. Col. Nichols "pinpointed the capsule position as it descended." He noted that his task force "directed and had complete control" of the C-119s making the capsule catch, and that "they even had them lined up so that they could make a second pass, if necessary."

Far Ranging Libs

B-24s Assigned Heavy Bombing Role In Pacific From Alaska to India

(Convairiety's continuing history of Convair and its products continues with wartime exploits of B-24 Liberators. This is installment No. 50.)

Three ferry command B-24s were early arrivals in the Southwest Pacific in the early months of World War II. Diverted from the command's Washington-Cairo route, they shuttled between Australia, the Philippines, the Netherlands East Indies and Burma, carrying high-ranking military personnel, urgent cargo and evacuees. By March, 1942, all three had been lost.

The B-17 Flying Fortress, first delivered to the Air Corps in 1937, was on hand in small numbers throughout the Pacific area when war started, and bore the major share of combat the first year. However, it was decided early to make the Pacific an all-Liberator ocean and within another year, the B-24 (and its Navy counterpart, PB4Y-1) were the only U.S. heavies flying over a segment of the globe stretching from Alaska to India.

The first all-B-24 outfit to reach the Southwest Pacific combat zone was the 90th Bombardment Group (Col. Art Meehan), trained in Hawaii. It began arriving in Australia Oct. 23, 1942, to join the recently created Fifth Air Force (Gen. Kenney). Its first mission was an eight-plane strike Nov. 16 at shipping in the Buin-Fasi anchorage, Bougainville. The 90th was withdrawn for further traning soon afterwards, however, and its 60 planes did not begin intensive missions until January, 1943. By spring its squadrons were battering targets as distant as Makassar and Kendari in the Celebes. Another Liberator group, the 380th, was based at Darwin and ranged as far west as Java on 14-hour missions.

The 13th Air Force (Brig. Gen. Nathan F. Twining) was activated in the South Pacific in January, 1943, with headquarters at Espiritu Santo. It began receiving B-24s in February with arrival of first units of the 307th Bombardment Group. (The battle-worn 11th Group, a B-17 outfit that had been in the South Pacific since mid-1942, returned to Hawaii to become a B-24 unit of the 7th Air Force.)

As amphibious forces "climbed the island ladder" from Guadalcanal northward, Twining's Liberators conducted far-ranging strikes against enemy bases and shipping. By October, 1943, when missions in support of the Bougainville invasion were nearing a climax, most of the 13th's B-24s were based on Guadalcanal—the 307th Group at Koli Field and the 5th Group at Carney.

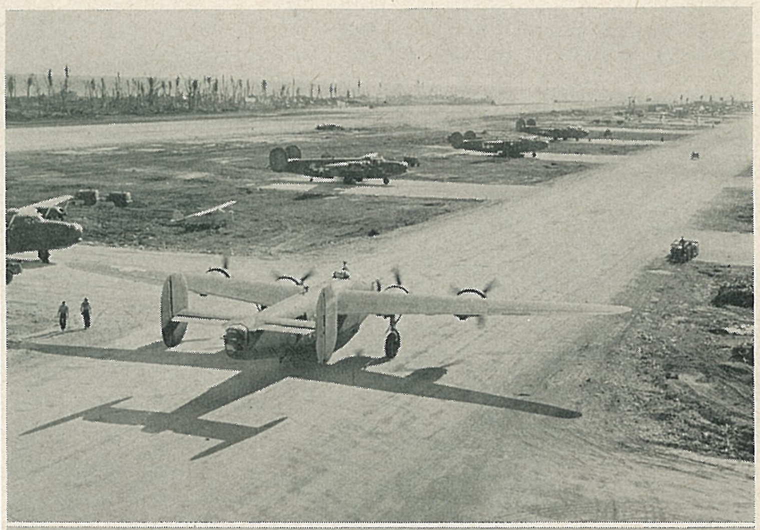
A unit of 10 specially-equipped Liberators (carrying new radar sighting devices) joined the 5th in August and was assigned to the 394th Squadron. Designated SB-24s, the planes flew low-level missions up the Slot almost nightly, attacking Japanese convoys in the waters around Bougainville, and were credited with sinking more shipping after dark than regular Liberators did by day. The SB-24s later were organized as a separate squadron, the 868th. Owing to virtual disappearance of night shipping targets in the spring of 1944, these aircraft turned to pathfinder service with the high-altitude heavies.

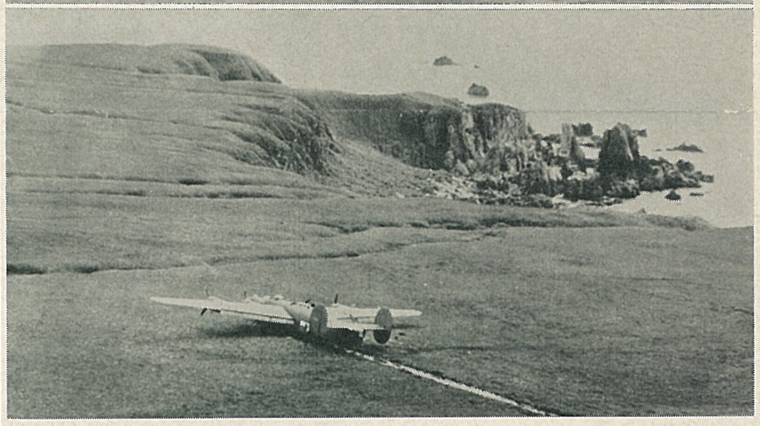
The 7th Air Force was created at Hawaii in February, 1942, (Maj. Gen. Clarence L. Tinker; after his loss in the Battle of Midway, Maj Gen. Willis Hale). A "crossroads" outfit until the fall of 1943, it rarely had more than one group of its own.

The 7th mounted its first B-24 strike Dec. 22, 1942, when 26 B-24Ds of the 307th Group flew 1,194 miles (with a staging stop at Midway) to hammer Wake Island with 500-pounders and incendiaries. This was the first blow at any Japanese-held base in the Central Pacific and caught the defenders by surprise. Only two planes were damaged. Wake was hit again in January, May, and July, 1943, the last raids being made by the 11th Group.

In April, 1943, the 7th used its long-legged Liberators for another distant strike, a punch at Tarawa and Nauru in the Gilbert Islands, more than 2,000 miles from Hawaii. Hale himself led the flight of the 271st and 372nd Bombardment Squadrons. They reached the staging field at Funafuti April 18. Two days later Hale took 22 Liberators more than 1,000 miles to plaster the Nauru airfield and phosphate works in the face of heavy interception. Five planes were badly damaged, and a Japanese counter-raid on Funafuti put six more out of service next morning. After 12 B-24s hit Tarawa April 22, Hale returned his bombers to Hawaii overnight — a flight that he laughingly called the "longest and fastest retreat in military history."

The 7th's B-24s and a squadron of Navy PB4Y-1s were flying off excellent U. S. fields in the Gilberts that winter, in support of the forthcoming invasion of the Marshalls. When the 7th Division went ashore at Kwajalein Feb. 1, 1944, B-24s of the 392nd Squadron furnished "ground support," dropping 1,000 and 2,000-pound bombs from only 4,000 feet, then strafing the defenses with .50-caliber machine gun fire.





LONG-LEGGED—B-24 bombers were all over Pacific during World War II. At top, airstrip at Kwajalein is pictured in March, 1944. Below, unable to land at home base in fog-bound Aleutians, B-24 found safe landing spot on soggy tundra. Pilot reported, "It was like landing on soft pat of butter."



REFUGE—When Gulf Coast storm threatened, these PBYs landed on waters of Lake Worth, near Convair Fort Worth plant. Photo was made during World War II.

SALVAGE YARDS GIVE SCHEDULES

Salvage yards at both Convair San Diego and Astronautics will be closed throughout the holiday weekends. Next open Saturday for Convair San Diego salvage store will be Jan. 7, for Astro— Jan. 14.



CRA CAPERS—Commissioners and their spouses were guests of honor at annual CRA dinner dance recently. In center photo are Mr. and Mrs. R. C. Loomis, Convair vice president and SD division manager, and Mr. and Mrs. J. K. Field, SD chief of employee services. Loomis used occasion to announce recent developments which beneficially affect business prospects for San Diego operating division. Affair took place in Pavilion Room of U. S. Grant Hotel.

1,000 Mechanics Briefed In 880-990 Maintenance

At least 1,000 technicians who will be handling maintenance of Convair jet transports at airports all over the world have visited Convair San Diego during the last two years under a Convair-sponsored observers' program.

As a follow-on to the formal maintenance training given key training personnel of all 880 and 990 airline customers, ground crews are brought to the San Diego plant in small groups at the conclusion of the first airline courses in the field, explained Don Maxion, field service representative in charge of SD transport service training.

So far, maintenance people from airport terminals of Delta Air Lines, Trans World Airlines, Northeast Airlines, Japan Air Lines, Swissair, Scandinavian Airline System, American Airlines have been at Convair SD to see the jetliners, the 880 and 990 production lines, and generally to become familiar with the company producing the airliners they will be maintaining. Now in the plant are power plant technical foremen and instructors from American Airlines' bases at New York City and Tulsa, Okla.

Under the contractural training offered each customer, 1,000 instructor hours are given the top training personnel of each airline during a comprehensive training program stretching over at least six weeks. These Convair-trained instructors fan out to airline terminals to repeat the instruction for the airlines' ground crews. At conclusion of the classes, always preceding the actual arrival of Convair jet transports, the crews are brought to Convair for a look at the planes and brush-up on any information they still feel they need.

They stay in the plant five days, visit various areas with which they are specifically concerned, and are given any help required from the SD maintenance training personnel, said Maxion.

As Convair jetliners go to the different lines, the ground crews can be taken directly to the airline training headquarters for indoctrination on the planes.

"From the reports we receive, we feel that this extension of our training program has become a definite asset to our airline customers as well as to Convair itself, in following through on our formal maintenance courses," remarked Mel Clause, assistant field service supervisor, SD transport service.

Game Drawing Proves Popular

More than 175 outdoor sports enthusiasts turned up at the annual Convair SD-Astro Big Game Drawing sponsored by the CRA Gun Club earlier this month.

Entries in the drawing totaled 134, the majority of which were deer "kills" but, in addition, three elk, one caribou and one antelope were claimed.

Winner of the drawing's top prize, a Winchester Model 70, was Cora Landy, wife of George Landy (Astro Dept. 733). Other prizes included a gun case, hunting socks, hunting knives.

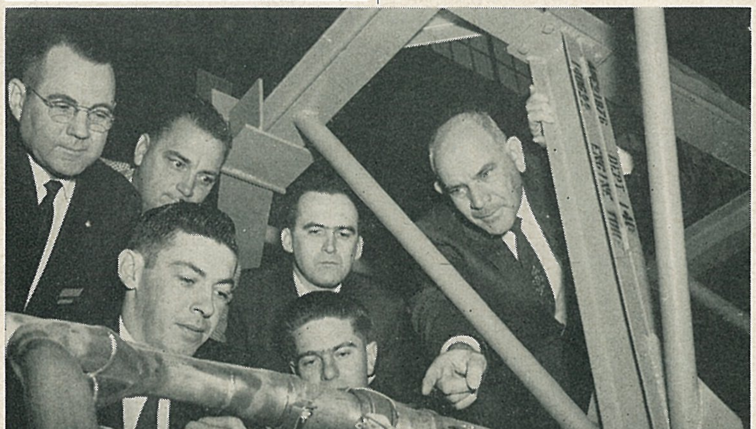
Winners were E. R. Gauthier, Howard D. Musick, Ruth Menzie, Earl E. McDaniel, George Anderson, Sam Modica, C. L. Moore, Andrew G. Helbig, G. R. Mayfield, Dean A. Hottell Jr., and Henry E. Johnson.

Four-Day Weekends Facing Convair Folk

Tomorrow (Dec. 22) marks the last working day before Christmas holidays for Convair people of San Diego, Astronautics, and Pomona operating divisions.

Except for those engaged in essential maintenance and industrial security functions, and production needs, all work will be suspended at those Convair locations over the four-day weekend. Regular working hours will be in effect Tuesday (Dec. 27).

The same holiday schedule will be repeated the following weekend when New Year's will be observed from Dec. 30 to Jan. 2.



OBSERVERS—Dave Weitzman (right) of Convair SD transport service training explains salient features of G. E. power plant for Convair 990s to American Airline men in from field for observation. In back row (from left) are R. N. Gazin, Tulsa, Okla.; G. P. Seabury, Idlewild Airport, N.Y.; W. S. Treadway, Tulsa; (in foreground) L. H. Knapp and W. S. Fey, both from Idlewild.

Ice Skaters to Hold Joint Xmas Party

Astroblades and Convair SD ice skating club will hold a joint Christmas party at 6:30 p.m., Dec. 22 at Iceland.

A number of special events are planned to augment regular skating and instruction. Free refreshments will be served, and club members will be eligible for the door prize drawing for a Christmas turkey.

Radiation Class Offered Public

A course in radiation physics for persons working with or interested in X-ray, radioactive materials, or radiation safety is to be sponsored by Convair San Diego in cooperation with San Diego State College during the spring semester.

Open to all Convair people in the San Diego area, both SD and Astro, on a tuition refund basis through SD educational services, the three-unit lecture and laboratory course will be held as an SDSC evening extension course.

I. L. Beauchamp of Convair SD aerospace and radiation medicine group, instructor, who is teaching a similar course at State College this semester, says that this is the first time such a course has been offered the general public through the extension division. No prerequisites are required.

Subjects to be covered include fundamentals of nuclear and atomic physics; X-ray, Alpha-Beta-Gamma radiations; interactions with matter; methods of measurement and detection; biological effects; and radiation safety.

Lecture sessions will consist of class demonstrations, illustrative problems, and discussion. State College's modern nuclear physics laboratory facilities will be available for lab experiments utilizing such instruments as Geiger counter, electroscopes, proportional counters, scintillation counters. Various radioactive isotopes will be used in the laboratory.

All Convair people interested in the course are asked to contact Frank Anderson of Convair SD educational services, who is coordinating Convair participation, at Plant 1, ext. 1827. Registration information, class time and location will be sent to all who signify an interest and placed on in-plant bulletin boards.

Colds Cut Numbers Of Blood Donors

Colds and other respiratory ailments cut heavily into the amount of blood collected at this month's bloodmobile visit at Convair SD.

Only 71 pints of blood were accepted from 138 volunteers signing for the Dec. 8 collection, said Ken Wulfemeyer of SD employee services. This raised the total on hand for Convair SD employees to 75 pints which will have to tide Convair SD through the next couple of months. Next bloodmobile visit will be in February.

Donors at the December bloodmobile were drawn from Depts. 6, 7, and 31 located in Bldgs. 5 and 51 at Plant 1.

Club Scholars of Past Sought By SD Management Committee

Whereabouts of over 70 Convair SD sons and daughters whose education was given an assist by Convair SD Management Club during the last 13 years is being sought by the current scholarship committee.

Since the program was begun in 1947, the SD Management Club has awarded $20,750 in cash and government bonds to at least 73 young people to aid them in obtaining college educations, said Keith Blair, committee chairman.

Now the club would like to locate as many of the former winners as possible to find out just what they are doing and how their present careers were helped by Management Club scholarships. The committee is especially interested in contacting those who received awards between 1952 and 1956, with girls listed by both maiden and married names.

Before 1952 the club conducted annual essay contests with $100 prizes going to seven top boys and girls. Cash awards of $500, $400, and $300 were given as scholarships to three top students each year during the next three years. In 1955 the awards were increased to $1,000, first place; $500, second; and $250, third. In 1956 the top girl and top boy each received $1,000. Each year since then the two high-standing scholars have been awarded the $1,000 scholarships, divided over four years of college attendance, and the next four runners-up, two girls and two boys, receive $100 U. S. Savings Bonds.

Plans for the 1961 contest are well under way, announced Blair, with application blanks to be available in January.

Serving on the present committee with Blair (Dept. 6) are H. E. Mayer, also Dept. 6; R. H. Nall (Dept. 3); Ray Lange (Dept. 4); Kirk Abbey (Dept. 7); E. H. Amory and Ted Houk, both of Dept. 34 at Rose Canyon; Glen Munkelt (Dept. 15); Clair Taylor (Dept. 400); Barbara Vincent (Dept. 91); and J. W. Woodhouse (Dept. 190).

Anyone with information on former scholarship winners is asked to send it to Mayer, publicity chairman, mail zone 6-103.

Well-Known Dept. 25 Couple Wed at SD

Marriage of Ruth Daugherty and S. J. Fortunato, both well-known Dept. 25 people at Convair SD, was solemnized Saturday (Dec. 10) at the First Presbyterian Church in San Diego.

The bride was secretary to H. A. Smith, chief plant engineer.

Joint SD-Astro Softball Team To Enter Top League in Area

A joint softball team composed of players from both Convair Astronautics and San Diego goes into practice soon before entering the top amateur softball league in Southern California shortly after the first of the year.

This will be the first time Convair fields a team in the Western Softball Congress of Southern California. Convair will be the only squad playing from San Diego.

Games will be played on the new Astronautics softball park adjacent to the Kearny Mesa plant on weekends.

Team manager is Tommy Martinez with F. D. Froggatte designated as team business manager.

Martinez this week sent out a call for tryouts to be held at 10 a.m. Jan. 8 at the Astro diamond.

Players from both operating divisions who feel they can compete against the best of Southern California's amateur softballers are invited to try out, Martinez said.

Ray Mendoza, ext. 1111 at Astro, may be contacted for additional information on the team.



GOING UP—Theodore D. Fritzges (left) and James H. Hamann (right) recently received journeyman certificates after completion of four-year aircraft and engine mechanic apprenticeship at Convair SD. In center is P. M. Prophett, assistant chief engineer—flight test. Both graduates will be assigned as flight engineers in production flight.



PLAYBACK—Last year's CRA president Danny Whorton (second from left) "listens" to tape recorder he received at annual CRA banquet last week. Current CRA prexy Jack Swank made presentation of traditional gift. Flanking their husbands are Mary Whorton and Emma Lee Swank.

First Tests Prove Out Design Of CRA's 25-ft. Boat Program

First experimental tests of Convair SD Recreation Association's 25-ft. boat were completely successful and in some instances even surpassed design requirements.

That was the opinion of Warren Hoyt, test engineer of the 25-ft. boat program which has been under development by CRA for more than a year.

The tests conducted in Mission Bay on Dec. 3 proved out the boat's planing capabilities, water line levels, rate of acceleration and turning properties.

After the hull had been loaded with 1,000 lbs. of sandbags, the boat planed (rose out of water) at 2,500 rpm, and maintained a speed of 40 mph at 3,500 rpm.

The initial tests guaranteed weight distribution of the hull to such a degree that Hoyt termed the hull one of the safest and fastest in the area.

During the tests, the boat was powered by a 215 Ford Interceptor Marine Engine designed to attain 4,000 rpm.

Work is now continuing on a cabin mold at the Gillespie Field CRA boat building facility. Project completion is expected sometime in March or April.

After that, a meeting will be arranged for all prospective Convair SD boat builders interested in acquiring 25-ft. boats of their own. They will be advised concerning cost of materials, methods of fabrication, details and designs.

Rough estimates of a finished boat range from $2,500 to $3,000; similar crafts on the open market are priced between $6,000 and $8,000.

A number of Convair men have contributed much time and effort to the successful start of the 25-ft. boat program. In addition to Hoyt, they are G. E. Saeler (Astro), Ronald Moore (Dept. 15), Robert Harshaw (Dept. 406), George Menas (Dept 6), Maj. M. K. McAuley (Air Force office), and Harold M. Weber (Dept. 115).

CRA Calendar

(Convair SD Recreation Association has some 40 activities in operation. For information on SD sports, call CRA headquarters, ext. 1245, Plant 1.)

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ARCHERY — No meeting in December. Next meeting scheduled Jan. 19.

BRIDGE CLUB — Next sessions Tuesday (Dec. 27) and Tuesday (Jan. 3), both starting at 7:30 p.m., Hotel Barcelona, 326 Juniper St.

CHORALAIRES — Reorganizational meeting Monday (Jan. 16), 7:30 p.m., CRA Clubhouse, Pacific Hwy. Rehearsals every Monday thereafter at the same place.

FENCING — Workouts and instruction every Friday, 7:30-9:30 p.m., YWCA, 10th and C St.

GOLF—Entries close Dec. 30 for CRA sweeps Jan. 7-8 at Flying Hills. Call ext. 1705, Plant 1.

JUDO—Workouts and instruction every Thursday in CRA Clubhouse, Pacific Hwy., 6-7:30 p.m.

MOVIES—Reduced-price movies Fridays, Saturdays and Sundays at Adams Theater, 3325 Adams Ave. Adults: 50¢; children under 12 free, if accompanied by adult.

PISTOL CLUB—Next regular monthly shoot Sunday (Jan. 8), San Diego Police Pistol Range, 9:30 a.m.

RADIO CLUB — Meeting tonight (Dec. 21), 7:30 p.m. at Harbor Drive headquarters.

RIDING CLUB—Horse Show planned Jan. 22, Clover Leaf Stables, Mission Valley. Regular meetings first Thursday of month, 7:30 p.m., CRA Clubhouse, Gillespie Field.

ROCKHOUND CLUB — Field trip Dec. 30-Jan. 2 to Dan's Camp near Oatman, Ariz. Call Dan Whorton, ext. 426, Plant 1, for information. Rockhound Shack on Pacific Hwy. closed until Jan. 9.

SPANISH CLASS — Beginners and intermediates Christmas party, Dec. 22, Tijuana Country Club, 7 p.m.

SQUARE DANCING — No fourth Saturday party night scheduled in December.

Rockhounds Plan Four-Day Outing

Rockhounds from Convair SD will trek some 300 miles to Dan's Camp near Oatman, Ariz. on their next field trip, reports Danny Whorton, CRA commissioner.

The excursion will cover four days: Dec. 30, 31 and Jan. 1, 2. The rock collectors will search for limonite, quartz crystals and fire agate.

Travelers can pick up detailed maps at employee services, Plant 1. Further information can be obtained by contacting Whorton, ext. 426, Plant 1.

The Rockhound Club will install its new officers at a meeting Jan. 12 at 7:30 p.m. in the executive dining room of the new cafeteria.

SD Couple's Answer Wins Set of Books

A leading question by a Convair SD man-wife team was worth a set of Encyclopaedia Britannica in TV-Channel 10's "Question of the Week" contest last month.

Winning question, sent in by Ed (Dept. 7) and Jeanne Warns (Dept. 3-7), was "What is gerrymandering, how did it originate, and how can it affect California politics in the forthcoming Congressional reapportionment?"

Entries Open For CRA Golf Play Jan. 7-8

Golfers at Convair SD will be able to start signing up today for the next CRA sweeps to be played Jan. 7-8 at Flying Hills, reports Ken Wulfemeyer, commissioner.

Entries for the first sweeps of the new year will close on Dec. 30. Linksmen may place reservations at ext. 1705, Plant 1.

Wulfemeyer also reminded CRA golfers that it will be necessary to play in at least three of the monthly tournaments during 1961 in order to be eligible to compete in the plant championship tournament in September.

Six monthly tournaments are slated prior to the championship event, affording ample opportunity to get in the required rounds.

Golfers are also asked to keep in mind that they must compete in two of the first three (January, February, March) tournaments to qualify for Convair inter-plant matches to be held in May and June.

Results of the recent CRA December tourney played at Torrey Pines saw six winners in three flights win Christmas hams.

In the first handicap group Emmett Williams (Dept. 100) low grossed a 77, and "Doc" Larman (Dept. 180) took first low net with 70.

In the 14-21 bracket Charles Williams (Dept. 6) led low gross with 89 and Frank Sisson's (Dept. 6) 73 took the low net prize. Winners in the third grouping were John Serafin (Dept. 7), who low grossed 100, and "Nick" Nichols (Dept. 15), the low net shooter with 65.

Choral Group Reorganizing

Reorganization of the Convair SD Choralaires will be formally launched with an initial rehearsal on Monday (Jan. 16) at 7:30 p.m. in the CRA Clubhouse on Pacific Hwy.

With 30 members presently on the choral group's roster, there appears to be a special demand for basses and altos, said W. A. Vogel, director, who is again returning to volunteer his services.

Vogel made a special appeal to past members of the Choralaires and prospective new singers to attend the first rehearsal. "We hope to get the activity under way as soon as possible so that we will be able to start giving public appearances within a couple of months," he said.

Rehearsals will be held on a regular Monday night schedule every week after Jan. 16.

Vogel said the Choralaires will present an all-new program in the spring selected from an especially fine music library of more than 150 titles.

The group held its first get-together since September at a Dec. 15 Christmas buffet dinner and songfest in the executive dining room.

CRA *Sports & Recreation* Convairiety

Mexican Xmas Party Planned For Spanish Class Students

Beginning and intermediate students in CRA-sponsored Spanish classes will climax their semester's activity with a Mexican Christmas party on Dec. 22 at the Tijuana Country Club.

Scheduled to start at 7 p.m., the party will feature a mariachi trio and Spanish dancers. Joining in the spirit of things, students will sing Mexican Christmas songs and break a pinata.

Another semester of beginning and intermediate Spanish instruction will start some time in January. Beginners will meet on Mondays and intermediates on Thursdays, both in Room 5 of the Conference Bldg., between 7 and 9:30 p.m.

Early reservations are already being taken for a scheduled two-week trip by chartered bus through Mexico. Main stops will include Mexico City, Cuernavaca, Taxco and Acapulco.

A tentative cost of $342 per person is expected to cover all expenses of transportation, food and lodging. Travelers will be set up in the best hotels, and travel by luxury bus on a route selected to include as many points of interest as possible.

Additional information concerning the schedule of new classes and the two-week trip can be obtained by contacting J. M. Hardison, instructor, ext. 2838, Plant 1.

Broadway Heads New Pistol Team For Next Quarter

Convair SD Pistol Club last week selected its new team for the next quarter. Standings were determined by highest aggregate match scores during the last three months.

New team members and scores are B. L. Broadway (Dept. 115), 833; Jim Halfacre (Dept. 180), 815; Carl Hornburg (Dept. 139), 752; and Ash Bishop (Dept. 400-2), 742.

At the Dec. 11 Pistol Club shoot, Broadway and Halfacre placed first and second in both the police course and short national. In the .22 caliber competition they tallied scores of 292 and 288; their scores in the short national match were 278 and 269.

In other classifications, Ash Bishop led the experts with 281 points, followed by E. E. Bickar (Dept. 6) with 278. Bickar also took home the Christmas ham in the luck event.

Top sharpshooter was A. B. Carlson (Dept. 68) with 264 points. Bill Ginsky (Dept. 6) led the marksman with 254 points.

Riding Club Plans Show in January

Plans for a January Horse Show were laid by Convair SD Riding Club at a meeting this month.

Scheduled to be held at the Clover Leaf Stables in Mission Valley on Jan. 22, the show will feature gymkhana and pleasure events for both juniors and seniors.

Christmas turkey winners at the December club meeting were Roy Simms (Dept. 280) and Frank Darnell (Dept. 139).

Convair persons interested in joining the club can do so at the regular club meetings which are held the first Thursday of the month at 7:30 p.m. in the CRA Clubhouse, Gillespie Field. Western and English riding classes are sponsored by the club in cooperation with stables in the San Diego area.

FED-MART INVITES CONVAIR MEMBERS

Convair SD employees who have been with the company a minimum of three years are now eligible for membership in Fed-Mart discount stores in San Diego, J. K. Field, SD chief of employee services, announced last week.

An initial $2 registration fee will also cover the 1961 dues. Thereafter, annual dues of $1 per year are required to retain membership. The "minimum three year" clause is a requirement established by the store.

Field said the Fed-Mart membership will replace the discount arrangement formerly available at the Employee Store on Pacific Hwy. which has been closed.

Fed-Mart has two San Diego stores: the Kearny Mesa store (BR-7-9500) is at 8001 Othello; the other (BE-4-8171) is located at 2380 Main St. Membership departments at either location can be contacted for additional information.

Archers Win Birds At Novelty Shoot

Ten Convair archers took home turkeys after a novelty shoot conducted Dec. 11 by Convair SD Archery Club. Forty bowmen participated.

Turkey takers were Harry Ross (Dept. 400), Al Phipps (Dept. 401), Roger Redden (Astro), Tom Boling (Dept. 31), Bob English (Rose Canyon), Nick Schmidt (Dept. 31).

Also Charles MacDonald (Dept. 97-6), Howard Ribby (Astro), Roy Dill (Dept. 5), and Danny Osborn, a junior entry.



GOOD HUNTING—Convair nimrods at Holloman AFB, N.M., proudly display their entries in CRA-sponsored contest for largest set of deer antlers. At left, Frank E. Roeder Jr. hands gift certificate to Pete Walters, second-place winner. Other winners, kneeling, are Lee Stouse, first; Bob Steger, third. Standing are John Harlow, Bob Bagwell, Billy Webb, Charles Wood, Floyd Jones, Mike Julian, John Harris, Berry Murphy, and Bennie Brown.



ATOMIC PROGRESS—In right hand photo, heat transfer reactor, used to power modified J47 engines, is checked by General Electric technicians at Idaho Test Site near Idaho Falls, Idaho. For ground test only, system is mounted on flat car for transport from test area to maintenance shops. In center, car emerges from 1,000-foot tunnel leading to test facility. Building is bigger than football field. At left, ground test reactor is shown at Fort Worth where it was placed in fuselage of B-47 to determine how it worked in plane smaller than B-36. Modified turbojet engine operated successfully on nuclear power.

Prominent Scientists Assigned to Convair In Exchange Program

Dr. N. G. van Kampen, professor of theoretical physics at the University of Utrecht, Netherlands, was welcomed at Convair San Diego the first of this month as the fourth scientist from abroad under the Exchange-Visitors program.

Through an arrangement with the U. S. Department of State, Convair SD physics section of the engineering department has been able to bring leading experts from all over the world to the company on a consulting basis.

Under direction of Dr. A. E. S. Green, chief of SD physics, responsible officer of the program for Convair, three other specialists who have gained worldwide recognition in their scientific fields have been working with the SD physics group during the last few months.

First to come to Convair under the Exchange-Visitors program was Dr. Shneior S. Lifson of Israel. His sponsorship was transferred to Convair from National Bureau of Standards, Washington, D. C., early last summer. He recently returned to Israel to resume his post as professor of physics at the Weizmann Institute of Science at Rehovoth.

Arriving this fall for initial one-year periods as consultants were Dr. Parameswara Iyer Mahadevan, lecturer in physics at the University Trivandrum, India; and Dr. Pieter Klaas Rol, chief of electromagnetic isotope separation group at the Laboratory for Mass Spectography, Amsterdam.

Dr. van Kampen, most recent arrival, will be at San Diego for two months.

Two other physics specialists, both from England, have been working at Convair SD during the last year, although not under the same program. Dr. A. C. H. Smith is expected to extend his stay for another year to continue experimental molecular beam research. He had been engaged previously in experimental research at University College, London.

Dr. T. J. M. Boyd, former research fellow in the department of electron physics at the University of Birmingham, left Convair this fall to accept a teaching post at the University of Maryland.

Advantages of the Exchange-Visitors program, set up by the State Department in 1948, are two-fold, explained Dr. Green. It allows personal contact and exchange of scientific knowledge between leading experts of the U. S. and other countries, as well as expanding present knowledge, training and experience in specialized fields of research.

"While at Convair the visiting scientists engage in unclassified research on basic physics underlying various vital aspects of space technology," said Dr. Green.

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Utrecht U. Professor Talks For Scientists

Dr. N. G. van Kampen, professor of theoretical physics at University of Utrecht, now acting as a consultant at Convair SD, spoke Dec. 6 to a group of staff scientists from the San Diego area at a seminar sponsored by Convair SD physics section.

His subject was "Power Series Expansion of the Master Equation." Attending were scientists from Convair San Diego, Astronautics, General Atomic, and the University of California at San Diego.

Institute to Hear Astro Man's Talk

Dr. Ta C. H. Li of Convair Astronautics' applied research group of engineering has been asked to present a special paper at the Jan. 23-25 annual meeting of the Institute of the Aeronautical Sciences.

Dr. Li will present a paper entitled "Liquid Behavior in Zero G Field."



FOREIGN TEAM—Looking over article on solar system environment with Dr. A. E. S. Green, chief of Convair SD physics section (far left), are scientists from abroad, now at Convair SD as consultants under Exchange-Visitors program, Dr. P. K. Rol, Netherlands; Dr. A. C. H. Smith, England; Dr. N. G. van Kampen, Netherlands; and Dr. P. I. Mahadevan, India.

Alaskan Sled Dog Passenger on 880

Even Husky sled dogs enjoy the royal passenger treatment on Delta Air Lines' Convair 880 jets.

Word from Harry L. Addis, Convair SD rep at Houston, Texas, tells of a Husky occupying the next seat to his owner, Alaskan breeder and trainer of sled dogs, on a recent Delta 880 flight from Houston to New Orleans. During the flight, effect of jet noise on the dog was observed for future shipment of sled dogs by jet transport.

The dog paid full passenger fare and was entitled to the "works."

Turbojet Successful Using Nuclear Power

A modified General Electric J47 turbojet engine has been successfully operated for hundreds of hours on nuclear power in ground tests at General Electric.

(GE is developing a direct-air cycle nuclear engine for possible use in the NX-2, proposed nuclear aircraft. Convair at Fort Worth has been engaged in nuclear airplane design studies since 1951.)

Details of the series of heat transfer reactor experiments (HTRE) were reported in September issue of GE's "AFA News."

The J47 engines were successfully operated more than 120 hours in the third of a series of tests recently at Idaho Test Site near Idaho Falls, Idaho. More than 65 hours were continuous, with one reactor operating two modified turbojets simultaneously on nuclear power.

The J47 turbojet engine is the same plant once used as supplementary power on the B-36, and now used on the F-86 and B-47.

The article continued:

"General Electric . . . is now working on an advanced, high-performance nuclear propulsion system of the direct-air cycle type which promises great growth potential, following successful ground tests with modified turbojet engines operating on nuclear power.

Since the first successful tests of a turbojet on nuclear power in 1956 much progress has been made in developing turbomachinery, shielding, controls and nuclear reactors.

"Control systems have been designed and successfully tested. The shielding problem has been solved and provides for safe operation of nuclear powered aircraft.

"Extensive testing is now under way on advanced types of nuclear fuel elements . . .

"A direct-air cycle turbojet high performance power plant can be provided by General Electric on a time schedule which will match that for the design, fabrication and testing of an airframe," the article concluded.

Shielding Problem in Atom Plane Whipped, Says FW Research Chief

Nuclear airplane state of the art now includes "adequate shielding protection" from radiation for both crewmen and airplane.

Dr. H. R. Dvorak, chief of nuclear research and development, based this opinion on a decade of pioneering studies and experiments in Convair FW's nuclear aircraft program.

"SAC crews would fly the NX-2 (new designation for a nuclear plane which could fly five days without refueling) on any number of sorties with negligible danger from radiation," Dvorak said.

"Further, we anticipate no serious materials problems on airplane systems due to radiation."

Convair FW pioneered nuclear aircraft studies, landing the initial Air Force nuclear propulsion study contract in 1950.

A contract for an extensive radiation testing program on materials came later, and this led to construction of the Nuclear Aircraft Research Facility (NARF) at Fort Worth.

NARF has been described by Capt. William C. Shiel, project officer, aircraft nuclear program office, ARDC, as "one of the most complete facilities available in this country for testing radiation effects. It is particularly suited to the investigations required of nuclear-aircraft programs."

One of the most significant milestones in the program came in 1952, when Convair won an award to construct and fly the nuclear test airplane (NTA). A converted B-36 thus became the first airplane to carry a nuclear reactor aloft. NTA's special nose contained a shielding crew compartment to protect crew members from nuclear radiation.

Extensive studies were made in NTA flights through 1957, giving Convair engineers a chance to analyze variables of radiation over a wide range of altitudes under different atmospheric conditions.

Meanwhile, radiation testing on the ground continued. Dose rates had to be measured under every conceivable circumstance to determine interaction of air, ground, and aircraft structure on radiation level in a crew compartment.

Looking beyond the days of "king-size" B-36s, Convair engineers tested a crew shielding by placing the ground test reactor in the fuselage of a smaller B-47.

Research and design work on the NX-2, which is designed to use either the direct-air cycle or indirect-cycle nuclear engine, is being "stepped up somewhat" at Convair FW this year.

Nuclear program manager A. Kalitinsky has announced that wind-tunnel testing of various models will also be "increased considerably" during 1961.

Meanwhile, the success of Convair FW's effort in the nuclear airplane program was perhaps suggested by Captain Shiel. He wrote in the fall and winter 1959 issue of "Air University Quarterly Review":

"General success of the radiation-effects work done to date . . . indicated that the current in-hand state of the art is more than adequate for a manned nuclear-powered development airplane . . ."

B-36 Memorial Gets New Paint Job To Last Until Annual Spring Cleaning

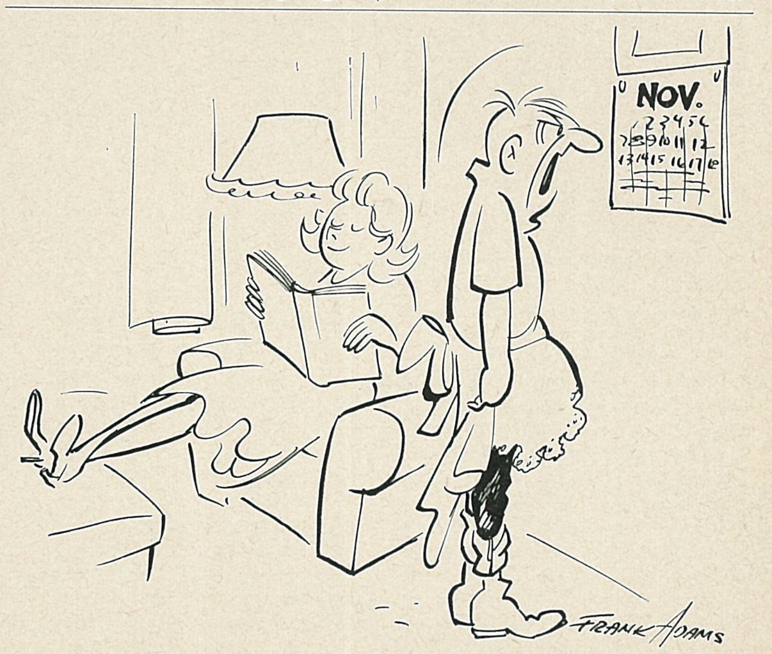
Convair volunteers recently gave the B-36 memorial at Carter Field a "nose powdering" to tide her over till annual spring cleaning.

About 30 Convair Management Club members and hourly people painted the famous Peacemaker's bomb bay doors, landing gear, upper and lower wing surfaces and other rough spots.

"We'll be back this spring to give it another thorough painting and cleaning job," said B. R. Main, who headed the volunteer force.

The B-36 memorial is open during winter months from 2 to 5 p.m. on weekends, and on other specially arranged occasions. Management Club members serve as guides.

Sam Keith is chairman of the club's B-36 memorial committee.



"How much of my vacation do you have left?"